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Department of Economics

## Sustainable shopping

- Consumer behavior in purchasing and donating secondhand clothes

*Jenny Jönsson*  
*Tina Wätthammar*



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**Sustainable shopping- Consumer behavior in purchasing and donating secondhand clothes**

*Jenny Jönsson & Tina Wätthammar*

**Supervisor:** Cecilia Mark-Herbert, Swedish University of Agricultural Sciences (SLU),  
Department of Economics

**Examiner:** Karin Hakelius, Swedish University of Agricultural Sciences (SLU),  
Department of Economics

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# Summary

Textiles are made in an unsustainable way and there is a need to find alternative ways and material to reduce the negative impacts on the environment, humans and animals. Problems like pollution, excessive water consumption and loss of soil fertility is a result of this lack of diversity. It is a necessity to find innovative alternatives in other fabrics due to the unsustainable use of cotton and polyester fibers. As in many other countries in the Western part of the world, in Sweden there is a rapid turnover and increased selling of clothes that result in increased textile waste. About 15 kilogram of textiles (net inflow) is consumed per person each year. Around three kilos of these 15 are either exported or given to charity. Consumers in Sweden throw away around half of the textiles bought per year and person.

More knowledge is needed in order to understand the consumer behavior and change it in a more sustainable direction. This knowledge is what is pursued in this study through interaction with the inhabitants of Uppsala, a city with approximately 200 000 residents. The focus is to try to pinpoint the secondhand purchasing- and donation behavior of the residents of Uppsala. The approach is both qualitative and quantitative research, through questionnaires and a focus group. Questionnaires are randomly handed out and respondents are collected through convenience sampling. The empirical study of this thesis is carried out in order to attempt to answer questions regarding why consumer purchase/not purchase secondhand clothes. Also why consumers donate/not donate clothes is a question set out to be answered. Yet another question regards different ways consumers dispose of unwanted clothes.

The main conclusion of this study is that consumers purchase secondhand clothes because they find it price worthy, to reduce the environmental impact and that unique items can be found in a secondhand shop. Consumers do not purchase secondhand clothes because they find it unhygienic and that the clothes are not as durable as newly manufactured clothes. The main reasons to why consumers donate clothes to second hand shops are to help the less fortunate, reduce the environmental impact and because it is the easiest way to dispose of unwanted clothes. Depending on the condition of the clothes the consumers select different ways to dispose of them. To donate clothes was common for unwanted whole and fully usable clothes and for worn out clothes it was common to dispose of them in the household waste.

From an environmental point of view it is better that the clothes is reused rather than being incinerated at waste stations. It is important to make it easier for the consumer to donate clothes, such as having available drop of sites. Another aspect is that the consumers need to be better informed about what happens with the donated clothes, so that the trust in the charities becomes stronger. If the consumers do not think that the clothes will be of proper use it can affect the donating behavior in a negative way. To purchase secondhand clothes is better for the environment than to purchase newly manufactures clothes.

# Sammanfattning

Textilier är gjorda på ett ohållbart sätt och det finns ett behov av att hitta alternativa vägar och material för att minska de negativa effekterna på miljön, människor och djur. Problem som föroreningar, överdriven vattenförbrukning och minskad bördighet är en konsekvens av denna brist på mångfald. På grund av den ohållbara användningen av bomull och polyesterfiber är det nödvändigt att hitta innovativa alternativ. I Sverige sker en snabb omsättning och ökad försäljning av kläder som resulterar i ökat textilavfall. Cirka 15 kilo textilier (nettoinflöde) konsumeras per person varje år och cirka tre kilo av dessa 15 exporteras antingen eller skänks till välgörenhet. Konsumenter i Sverige slänger omkring hälften av köpta textilierna per år och person.

Mer kunskap behövs för att förstå konsumenternas beteende och ändra det till en mer hållbar riktning. Denna kunskap är vad som eftersträvas i denna studie genom interaktion med invånarna i Uppsala, en stad med cirka 200 000 invånare. Tillvägagångssättet är både kvalitativ och kvantitativ forskning, genom frågeformulär och en fokusgrupp. Frågeformulär delades ut till 170 slumpmässigt utvalda respondenter och en fokusgrupp med sju deltagare användes för att ge djup i studien.

Den viktigaste slutsatsen av denna studie är att konsumenterna köper begagnade kläder eftersom de anser det vara prisvärt, för att minska miljöpåverkan och att unika objekt kan hittas i en secondhand butik. Konsumenter köper inte secondhand kläder eftersom de tycker det är ohygieniskt och att kläderna inte är lika hållbara som nyproducerade kläder. De främsta skälen till varför konsumenter skänker kläder till second hand butiker är att hjälpa de mindre lyckligt lottade, minska miljöpåverkan och för att det är det enklaste sättet att göra sig av med oönskade kläder. Beroende på klädernas skick väljer konsumenterna olika sätt att göra sig av med kläderna. Att donera kläder var vanligt för oönskade hela och fullt användbara kläder och för slitna kläder var det vanligt att slänga i hushållssoporna.

Ur miljösynpunkt är det bättre att kläderna återanvänds istället för att förbrännas vid avfallsstationer. Det är viktigt att göra det lättare för konsumenten att donera kläder, till exempel genom klädcontainers och dylikt. En annan aspekt är att konsumenterna behöver bli bättre informerade om vad som händer med donerade kläder, så att förtroendet för välgörenhetsorganisationer blir starkare. Om konsumenterna inte tror att kläderna kommer till bra användning kan det påverka donationsbeteendet på ett negativt sätt. Att köpa begagnade kläder är bättre för miljön än att köpa nyproducerade kläder.

# Abbreviations and definitions of terms

CDP	Consumer Decision Process
CEMUS	Centrum för miljö- och utvecklingsstudier
EU	The European Union
FMCG	Fast moving consumer goods
Myrorna	Is the largest retail chain of secondhand items in Sweden (Internet, Myrorna.se)
Participants	The individuals who participated in the focus group discussion
Respondents	The individuals who filled out our questionnaire
Secondhand	Defined as used clothing or previously worn garment and is not restricted to clothing, for example also shoes, belts, handbags and linens is also included in the definition (Internet, Bergfashionlibrary, 2012).
SLU	Swedish University of Agricultural Sciences



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# 1 Introduction

*“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”* (Internet, UN, 2013).

Sustainable development is widely used and interpreted in many different ways (Hopwood *et al.*, 2005). In wider terms sustainable development refers to efforts to combine environmental issues with socio-economic issues. Sustainability on the other hand is often mentioned as consisting of three elements and the balance between them: economy, social and environment equity (Gardetti & Torres, 2013). Over the last hundred years there has been a separated view regarding environmental and socio-economic issues (Hopwood *et al.*, 2005). The industrial revolution, development of capitalism and science has contributed to this particular view. Without awareness of sustainable development among individuals there can be no sustainable society (Gardetti & Torres, 2013). NGO's, governments, academics and marketers all agree on the fact that consumers need to be more concerned and engaged in environmental actions (McDonald *et al.*, 2012). If consumer groups can be more well-defined this can help marketers and policymakers in their work of designing interventions aimed to reduce the environmental impact that the consumption of clothes is connected with, for example producing, buying and using. Usage represents the highest environmental impact as clarified in the following statement:

*“The biggest impacts of textiles and garments occur when they are being used by the consumer (estimated at 75–95% of the total environmental impact) and is mainly explained by the use of electricity, hot water and washing and drying processes. This contributes to the generation of greenhouse gases and global warming”* (Gardetti & Torres, 2013, p.8).

The role of the consumer is vital and should not to be underestimated. In the year of 2000 the world's consumers spent roughly US\$1 trillion on clothing (Gardetti & Torres, 2013, p.1). Of the total world export seven percent are clothing and textiles. The sector is dominated by developing countries, with China in the forefront. Industrialized countries are still significant exporters, especially Germany. Worldwide it is estimated that 26, 5 million people work in the clothing and textile sector. Out of the total number workers around 70 percent are women, in the garment industry the women is traditionally the one to sew and pack clothes. Supervisors are likely to be men, working with machines and techniques and the men earn more money than the women. Employment in the sector has steadily increased in developing countries like Bangladesh, India, China and Pakistan over the past decade. The textile industry is significant to our global economy, being such a large and important industry worldwide.

## 1.1 Problem background

Consumption behavior is an aspect of sustainable consumption and involves pre-purchase, purchase and post-purchase components. One definition of consumer behavior is *“acquisition, consumption, and disposition of goods, services, time and ideas by decision making units”* (Jacoby *et al.*, 1977, p. 22). Consumer disposition behavior has although a natural part of the consumption cycle received limited research attention and is a relatively new area in research (Albinsson & Perera, 2009; Birtwistle & Moore, 2007). Acquisition and disposal is managed by consumers by engaging in five types of disposition, for example sharing, donating, exchanging, ridding and recycling. A study by Albinsson & Perera (2009) shows that consumer voluntary disposition consists of three mechanisms: item characteristics, individual

characteristics and community characteristics. The day-to-day behavior of individuals is one of the most difficult behaviors to change (McDonald *et al.*, 2012). Habits are important when it comes to consumer behavior and consumer choices can sometimes be regarded as irrational with a poor connection to consumer values (Niinimäki, 2010). The consumer fulfills unconscious needs and inner motivations by consuming.

With uplifts in prices and inflation, consumers worldwide try to cope with this development in different ways (Internet, Kantar World Panel, 2013). Among low and middle income consumer segments the spending during high inflation is primarily on bare necessities, fast moving consumer goods (fmcg). The fmcg budget is rearranged among urban households when prices are high. Packaged groceries constitute the larger part of the budget at the expense of beverages, personal and home care (non-food categories). Bulk-buying is another trend in fmcg, buying larger quantities less often. High inflation and economic crisis has led to changes in trends on the fmcg market. Consumers with low income search for cheap prices and switching to more affordable solutions, while other consumers may not change their choices and preferences regarding fmcg. The fmcg market and the textile and clothing industry are heterogeneous markets (Internet, Kantar World Panel, 2013; Gardetti & Torres, 2013). It is therefore important to understand that consumers are a heterogeneous group with different attitudes and demands.

Sustainable production in the clothing industry and fulfilling the consumer need quickly are conflicting objectives (Niinimäki, 2010). There is a high demand for cheap fashion and as a result the fast-fashion market has grown extensively over the past few years (Morgan & Birthwistle, 2009). Fast fashion can be stated as short durability, low price and limited edition and is distinctive for the large clothing actors on the market (Ekström *et al.*, 2012). Disposable fashion means that the clothes are not made to last a longer time (Morgan & Birthwistle, 2009). Consumers today are purchasing and disposing large quantities of clothes, particularly the younger consumers. As the consumption of clothes increases the textile waste also increases. The synthetic nature of the materials used makes the clothes difficult to recycle.

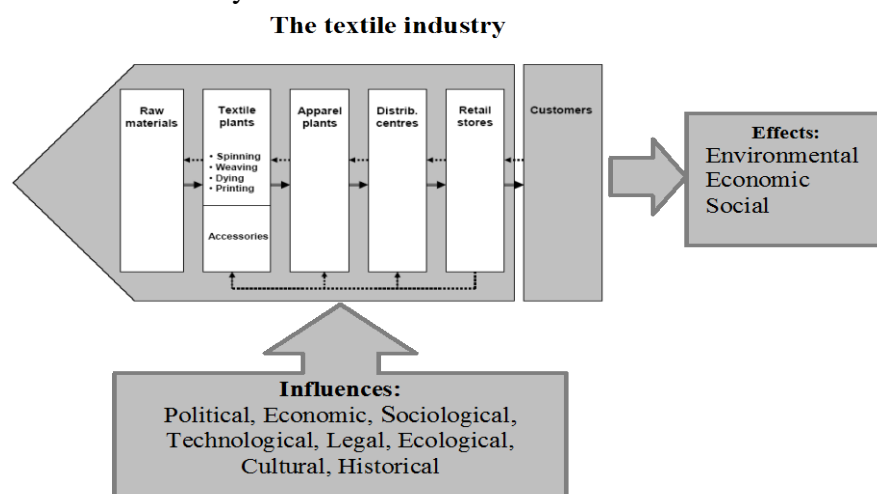
During the last few years a movement called slow fashion has grown as an antithesis to the environmental unfriendly fast fashion (Ekström *et al.*, 2012). Slow fashion embraces among other things to buy fewer and more durable clothes and purchase in secondhand shops. Slow fashion suggests that there are consumer segments that are aware of the environmental effects caused by the textile industry and with this knowledge act in a sustainable way. Attitudes towards clothing in general are shaped by many different factors such as age and gender (Fisher *et al.*, 2008). Sustainable consumption of clothes is not just about what to buy but also about how to dispose clothes (Ekström *et al.*, 2012). Several environmental problems can be derived to the different steps of the clothing lifecycle. These steps are further explained in 1.1.1, in which the supply chain of the textile industry is described.

#### 1.1.1 The textile industry supply chain

The textile industry is diverse with many different actors in the supply chain and covers a huge range of activities from the production of raw materials to the finished clothing reaching the consumers (Nordås, 2004; Gardetti & Torres, 2013). In order to provide a more detailed picture of the supply chain the different parts are presented in detail:

- ✓ **Raw materials:** Natural fibers such as cotton, wool, silk and hemp is produced in agricultural systems (Gardetti & Torres, 2013). Man-made fibers such as polyester and nylon are synthetic products made from oil (Allwood *et al.*, 2006).
- ✓ **Textile plants:** Raw materials are processed into yarn and fabrics (Gardetti & Torres, 2013). Spinning, weaving, bleaching and printing is done to meet consumer demand regarding the visual, physical and aesthetic properties of the clothes.
- ✓ **Apparel plants:** The production technology has not changed much over the past century (Nordås, 2004). The progressive bundle system used means that the fabric is first cut and then put into bundles grouped on the different parts of the garment. The fabric is then sewn together in a systematic way in different operations, the workers are specialized in one or a few operations. It takes about 40 operations for a pair of pants to be manufactured.
- ✓ **Distribution centers:** Lean retailing is demanded by the retailers and suppliers have to comply with this demand (Nordås, 2004). This means for instance that suppliers are required to have bar codes on the product reaching the retailers. Also to provide apparel already placed on hangers that can be place in the shop directly from the truck is required. Distribution centers have to answer to the retailers demand fast.
- ✓ **Retail shops:** A change in the retail sector has occurred in the past few decades (Nordås, 2004). The sector is more concentrated meaning there is a growing number of large shopping malls in the outer parts of cities and shops in the city center is decreasing.
- ✓ **Customers:** The aggregated demand from the consumers influence what is being produced and reaching the market (Nordås, 2004). Information flows from customers throughout the textile supply chain. The customer can choose to dispose of the textiles after use or reuse, recycle or recover the clothes (Allwood *et al.*, 2006).

Each of the different parts of the chain may involve different companies specialized in activities that adds value to the product (Nordås, 2004). In figure 1 the different influences and effects on the textile industry are illustrated:



**Figure 1 Influences and effects on the textile industry. Inspiration from Nordås (2004, p.4) and Allwood *et al.*, (2006, p.24)**

As illustrated in figure 1 different factors influence the textile industry (Allwood *et al.*, 2006). The different influencing factors result in social, economic and environmental effects. The many actors in the value chain contribute to the complexity of the industrial system (Nordås, 2004). Regarding the consumers there are diverse market segments requiring different kinds of fashion. On the one end is high-quality fashion, which is an industry with modern technology and workers who are relative well-paid. The other market segment is lower-quality production and here the production is mainly centered in developing countries with workers who earn lower wages. The textile industry is a demand-pull-driven system. Goods move through each step of the chain from raw materials to customer whereas information flows from the customer down the chain influencing what is being produced. Different logistics and business services make the flows of goods and information run smoothly between the different actors.

## 1.2 Problem

The consumption concentrated to the richer nations causes the most environmental damage, though the damage strikes the hardest on the poorer countries (Adrangi *et al.*, 2004). In the last 100 years consumption has expanded significantly and with this growth follows an uneven distribution. It is estimated that 20 percent of the consumers in the highest income nations accounts for 86 percent of the total private consumption, which points to an uneven distribution of wealth (Adrangi *et al.*, 2004, p. 418). About one percent is consumed by the bottom 20 percent. All consumption-related activities have environmental effects throughout the world, and this includes the whole chain from production, usage and disposal (Adrangi *et al.*, 2004; Ekström *et al.*, 2012).

Textiles are made in an unsustainable way and there is a need to transform the production of it (Internet, Future Fabrics Expo, 2013). In finding alternative ways and using alternative material the negative impacts on the environment, humans and animals can be minimized. In the market cotton and polyester currently have dominating positions as materials used in garment production. Of the world's clothing output cotton and polyester account for over 80 percent and it is unsustainable (Internet, Future Fabrics Expo, 2013). Problems like pollution, excessive water consumption and loss of soil fertility is a result of this lack of diversity. It is a necessity to find innovative alternatives in other fabrics due to the unsustainable use of cotton and polyester fibers.

### *The four impact areas from the textile and apparel industry*

There are four major impact areas from the textile and apparel industry and these areas are considered to be global problems requiring sustainable solutions on a local level (Internet, NRDC, 2013):

- ✓ **Raw materials:** In manufacturing clothes there is a need for cotton in the primary production as well as in the processing of clothes (Ekström *et al.*, 2012). Cotton production requires great amounts of water, chemicals and energy and is in the top when it comes to water use. To produce one kilogram of cotton there is an estimated need of 29 000 liters of water. Around 70 percent of the cotton cultivated in the world today receives water through irrigation (Liljebäck, 2012, p.17). Handpicking cotton is in itself a health risk due to the pesticides and chemicals used in the cotton cultivation.
- ✓ **Manufacturing:** Textile manufacturing causes a huge footprint on the environment with harmful chemicals and consuming enormous amounts of energy for steam and

hot water (Internet, NRDC, 2013). Adding to the problem is the fact that the industry is centered in developing countries.

- ✓ **Transportation:** Carbon emissions and waste generation are major impacts resulting from transport (Gardetti & Torres, 2013). There are a range of options in moving garments from the factory to the manufacturers and retailers, mainly located in Asia (Internet, NRDC, 2013). Each option will impact the environment in some scale, but by changing for example shipping practices and make informed transportation choices the pollution footprint can decrease, as well as result in moneysaving for the company.
- ✓ **Consumer care:** Dry cleaning is considered a risk to the environment and public health and consumers are encouraged to wash more clothes at home where the clothes should air dry and be washed in cold water (Internet, NRDC, 2013). Designers on the other hand are encouraged to minimize the use of fabric that needs to be dry-cleaned and educate the customers in different cleaning alternatives.

Raw materials, manufacturing and transport are mainly concentrated to developing countries while consumer care is global. In Sweden the trend is the same as in many other Western countries, there is a rapid turnover and increased selling of clothes that result in increased textile waste (Ekström *et al.*, 2012). About 15 kilogram of textiles (net inflow) is consumed per person each year (Carlsson *et al.*, 2011, p.14). Around three kilos of these 15 are either exported or given to charity (Ekström *et al.*, 2012, p.21). Consumers in Sweden throw away around half of the textiles bought per year and person (Ekström *et al.*, 2012, p.12).

When being asked Swedish consumer's say that they care about the environment, have a positive attitude and want to contribute to sustainable development (Ekström *et al.*, 2012, p. 14). Positive attitude is unfortunately not enough to change a behavior, previous studies clearly reveal that there is a gap between attitude and actual behavior (Niinimäki, 2010; Auger & Devinney, 2007; Carrigan & Attalla, 2001; Szmigin, Carrigan & McEachern, 2009; De Pelsmacker *et al.*, 2005). Ethical products often have low market shares although consumers express positive attitudes and willingness to buy products of this kind (De Pelsmacker *et al.*, 2005). When making a purchase decision other attributes for example price, quality and brand are taken into account (De Pelsmacker *et al.*, 2005; Fisher *et al.*, 2008).

More knowledge is needed in order to understand the consumer behavior and change it in a more sustainable direction. This knowledge is what is pursued in this study through interaction with the inhabitants. The focus is to try to pinpoint the secondhand purchasing- and donation behavior in Uppsala, a city with approximately 200 000 residents (Internet, UK, 2012). In the study performed by Ekström *et al.*, (2012) the result show that the respondents rarely buy secondhand clothes and the most common ways of disposal of unwanted clothes are giving away to friends and family or giving to charity. By studying the secondhand purchasing- and donating behavior hopefully deeper insight and knowledge in the consumer's actual behavior will be provided. Uppsala is a city with two universities and many different consumer segments, an interesting city to study from a research perspective.

### 1.3 Aim and delimitations

The aim of this study is to explain conditions for consumer behavior related to the purchasing and donating of secondhand clothes. This study concerns sustainable development and sustainable consumption is a part of it. The two parts, purchasing and donating, are not seen as separate therefore both are investigated. The overall objective is to increase the

understanding of how consumers dispose unwanted clothes and their attitudes to purchasing secondhand clothes. The increased understanding may be useful to actors like authorities, secondhand businesses, environmental- and charity organizations, and to the textile commerce and their work on developing sustainable solutions on how to re-use and re-cycle clothes.

Through empirical studies a gap between consumer values and attitudes can be identified, and This case study will reveal if this is the case with secondhand clothes. These are the research questions:

- ✓ **Why** do consumers **purchase** secondhand clothes? (or not to do so)
- ✓ **Why** do consumers **donate** clothes to secondhand shops? (or not to do so)
- ✓ In **what** different ways do consumers **dispose** of unwanted clothes?

These three research questions cover the main area of interest of this study. The first question is about the actual purchase behavior of secondhand clothes. Question two is about why and how clothes are donated to secondhand shops. The third question is how unwanted clothes (whole and worn out) are disposed of by consumers.

### 1.3.1 Methodological delimitations

Consumer behavior is a field that has had extensive research and different definitions and theories has derived from it. With many established theories on consumer behavior less is found on the disposal part. The interest of understanding consumers and investigating their behavior has contributed to researchers from different areas like marketing, psychology, social studies and economists developing different definitions and theories on consumer behavior. With solid theories on the consumer behavior this study uses a deductive approach, departing from an established theory. With the deductive approach the aim is to study the purchasing- and donating behavior in Uppsala. However, no solid theories exist on the disposal part of consumer behavior, suggesting that an inductive approach would be appropriate for this part, where the researcher departs from empirical findings. In this study only the deductive approach is carried out. The aim is not to normatively discuss the respondent's behavior, attitudes and actions.

### 1.3.2 Theoretical delimitations

The theory choices in this study illustrates the diversity and complexity of consumer behavior as it involves many different areas like how consumers make decisions, values, attitudes, and previous experiences. The CDP (consumer decision process) model has a rather extensive part in the theory chapter but the aim is not to in detail study the consumers actual behavior in the secondhand shops, neither their disposal behavior as this is apparently difficult to study. An EU (European Union) directive on disposal behavior is used as no solid theories on the disposal behavior exists, implying a theoretical delimitation (2008/98/EC).

### 1.3.3 Empirical delimitations

The approach is both qualitative and quantitative research, through questionnaires and a focus group. Questionnaires are randomly handed out and respondents are collected through convenience sampling. Answers received through the questionnaires from the respondents may not reflect the actual behavior of the respondents. The interaction with the respondents is limited to handing out questionnaires through convenience sampling. No further action was made to insure the truthfulness of the respondent's answers, a follow-up considered being difficult to realize. Also no action was taken to reassure that the questionnaires were filled out correctly on the spot of distribution. The questionnaires were distributed in the city center, at SLU (The Swedish University of Social Sciences) and CEMUS (Centrum för miljö- och



utvecklingsstudier). Other places outside the city center are not included, in the city center many secondhand shops can be found and naturally a higher concentration of consumers. SLU and CEMUS are included because it can capture the behavior of students, a consumer group of interest in a university city like Uppsala.

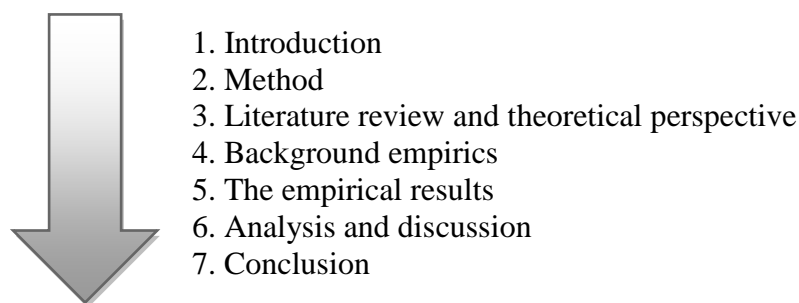
Collection of empirics was delimited to the consumers in the city center of Uppsala and students at SLU and CEMUS. The aim is not to draw general conclusions on the purchasing- and donating behavior on consumers regarding secondhand clothes. The aim is rather to provide a picture of the behavior and attitude in a bigger city with many consumer segments, a city like Uppsala.

The focus group in this study consists of young Swedish and foreign students. Consumers from other groups are not included because of difficulty in finding willing participants. Also, the university is a natural setting for the authors and provided good opportunities in finding participants to the focus group.

This study is limited to secondhand clothes, other secondhand items like shoes, furniture and cook-ware is not included. The interest is textiles and sustainable development therefore non-textile items are not relevant for this study. Secondhand clothes include all kinds of garment worn on the body and jackets, coats and hats. Underwear is not included due to the sensitivity in asking questions and the difficulty in receiving truthful answers from the respondents. Another limitation is the Swedish market for secondhand clothes and no generalization can be made to other countries based on this study. The subject is concerned with consumer behavior and attitudes and it is noted by the authors that results may fluctuate over time, due to changes in trends and consumption (for example, during recession consumption decreases). If the study were to be repeated in the future the results would not be expected to be unchanged.

## 1.4 Outline

The outline of this thesis is illustrated in the figure below. Chapter 1 introduces the reader to the problem background, problem and aim. The method is presented in chapter 2 which includes the research method and data collection techniques. In chapter 3 a literature review containing consumer behavior is presented including the consumer decision process model and other variables shaping the decision process. Chapter 4 gives the reader an overview of the background empirics, such as previous research results and forces behind clothing consumption and disposal. In chapter 5 the empirical results from the questionnaire and the focus group are presented. In chapter 6 the analysis and discussion takes place. Chapter 7 presents the conclusion and advice to further research in the field is provided.



**Figure 2 Thesis outline**

## 2 Method

In this chapter the aim is to provide a reflected discussion in choices relating to method. First the reader is introduced to the literature review and the choices made in that section. After that the units of analysis is presented followed by an explanation of choices made in the empirical study. Then the reader in detail can read about the questionnaire and the focus group, and the implementation of both. The data analysis presents quantitative and qualitative research analysis and in this section statistics is introduced. The method chapter ends with information on how quality of research can be established and some words on ethical aspects that need to be considered by the researchers.

### 2.1 A literature review

In this paper the literature review is based on academic articles from peer-reviewed journals and the procedure includes collecting data from the most recent articles until an adequate amount is reached. A recent study about how consumers dispose of clothes, written by Ekström *et al.*, (2012) served as inspiration. The study along with academic articles and books has been used in order to provide an overall picture of the subject.

The deductive approach is the choice in this study as it works from top-down, starting general and then being more specific. As established in Bryman (2008), the relationship between theory and research differs from an inductive and deductive approach. In a deductive approach the theory is followed by observations and findings and in an inductive approach the observations and findings are followed by the theory, see figure 2:



**Figure 3 Overview of the differences between an inductive and deductive approach (Bryman, 2008, p.11)**

The deductive approach is presented in the following steps: theory → hypothesis → data collection → findings → hypothesis confirmed or rejected → revision of theory (Bryman, 2008). The deductive outline does not have to be followed strictly as the process is not always linear. If new information occurs one might have to go back and redo certain steps if necessary. In this study theory is selected on beforehand and the step to follow is the empirical observations. The deductive approach is often used when the research is quantitative and the inductive approach is suitable for qualitative research. It is important to have in mind that in reality it is not always as clear-cut as in the theory. It could be better to think of inductive and deductive theories as tendencies and not as a hard distinction.

The approach to finding theories started with reviewing literature recommended from the supervisor. Literature used in the study by Ekström *et al.*, (2012) was reviewed as the articles are very central for this study. Reviewing different articles meant that more knowledge could be provided and a sense of direction in the study could be identified. Articles were browsed in the library at the SLU providing access to databases such as JSTOR, ScienceDirect, SpringerLink and Emerald. Key words when searching for relevant articles are for example: secondhand\* AND clothes/consumption, consumer\* AND behavior, disposal\* AND

behavior, values\* AND consumer, attitudes\* AND consumer, gap\* AND consumer values/attitudes and motives\* AND clothing consumption. Most articles are marketing oriented, explaining the consumer behavior and influences, as well as the gap between consumer attitude and values. Few articles were found on disposal behavior, much more on the consumption side revealing that this is a more researched and explored area.

Theory is important “*because it provides a backcloth and rationale for the research that is being conducted*” (Bryman, 2012, p.20). The findings from the research can be interpreted and a framework can be provided. Reviewing the literature gave the ground for selecting the CDP model, consumer behavior, values, attitudes, culture-income- and social class and forces behind clothing consumption. In the library of SLU books were searched for, mainly for the method part of the thesis. Here, method literature written by Robson and Bryman are extensively used.

## 2.2 Units of analysis

In a research project the unit of analysis is the “*major entity that you are analyzing in your study*” (Internet, Research Methods, 2013). It is the things we examine and in social science it is common to study individuals, groups and organizations to mention a few. Individuals are probably the most common unit of analysis in social science research. It is also common to study individuals and thereafter aggregate the individuals into groups and drawing generalized conclusions about the population in which the individuals belong. It is important to differentiate *who* and *what* that are being studied.

*Who* in this study are the consumers in Uppsala, randomly selected through convenience sampling. *What* is the consumer behavior regarding purchasing and donating secondhand clothes.

## 2.3 Qualitative and quantitative research methods

There are differences and similarities between qualitative and quantitative research methods. *Qualitative research* emphasizes words rather than the quantities in the data collection and analysis (Bryman, 2008). The most widely employed method in qualitative research is the interview. The theory is treated by qualitative researches as something that emerges from the collection and analysis of data. During the research process testing the theories is demanded and needed in qualitative research.

In *quantitative research* the orientation in the role of research is deductive with the emphasis on testing of theory (Bryman, 2008). Quantitative research in social research has been the dominant strategy and can in broad terms be explained as “*entailing the collection of numerical data*” (Bryman, 2008, p.140). The process of quantitative research can broadly be divided into theory, selection, processing, analyzing and conclusions. What the researcher must do is to interpret the result based on the analysis and findings. The findings and connections between previous steps in the process are considered. At the end of the process it is important that the researcher can convince others that the findings are important. An important part of the research process is the significance and validity of one’s research.

### 2.3.1 Data collection techniques

The quantitative and qualitative research can be combined in different ways and depending on the sequencing and status of the collection of data different groupings can be made. Sequential explanatory design is a typology which states that the quantitative data is first analyzed and then the analysis of the qualitative data follows. In the analyzing chapter of the

project the two methods are integrated, here the qualitative data helps interpret the quantitative findings. Bryman (2008) refers to a combination of quantitative and qualitative research to mixed method research. Mixed methods can also be referred to as multi-strategy design (Robson, 2011).

The selected approach in this study is mixed methods research because two aspects are of interest regarding the purchasing- and donating behavior of secondhand clothes. The first aspect is considered through the *questionnaires* and is *what, where* and *when*. The second aspect is considered through the *focus group* and is *why* and *how*. The focus group provides depth in the study through why and how questions. Both of these data collection techniques are presented in detail 2.3.2 and 2.3.3.

The multi strategy design has many potential benefits, but has also been criticized in various ways (Robson, 2011; Bryman, 2008). Potential benefits include among other things that a wider range of research questions can be answered and that a more complete and comprehensive side of the topic can be revealed (Robson, 2011). A critique to the multi-strategy design is that the research might become disjointed and unfocused. Nevertheless there are a wide range of potential benefits with combining quantitative and qualitative research.

### 2.3.2 The questionnaire

In a previous research study by Ekström *et al.*, (2012) the aim was to increase the knowledge and understanding of *how* consumers dispose of clothes. The study is up-to-date and was conducted in a different setting from our study, a large discount shop in the municipality of Falkenberg named Gekås Ullared. Our study is inspired by it to the extent that we used the same questionnaire, with minor alterations in it, see appendix 2 for the questionnaire used in Ekström *et al.*, (2012). The reason why is because our study can be viewed as a reduced version conducted in another part of Sweden in a city setting, and not another discount shop study. The questionnaire consists of **25** questions divided into **four** major parts:

1. *Waste sorting/separation*
2. *Buy and dispose of clothes*
3. *Buy secondhand*
4. *Final questions about respondents*

What is of interest with these types of questions is the actual behavior of the respondents as well as explanations to the behavior. The ten first respondents through convenience sampling did not answer the questionnaire in a correct way and one respondent also discovered a mistake in it. This led to an improvement of the questionnaire with more clear instructions to help the respondent. These ten respondents were excluded from the final sample used. After the improvement most of the respondents filled out the questionnaire in a correct way. For example, depending if you answered yes or no the instructions were that either you continue to answer the sub questions or skip to another part of the questionnaire. Some respondents continued to answer although they were supposed to skip to another part. After the final improvements the questionnaire was not tested again, the distribution started at once through convenience sampling.

### *Design*

Because we wanted to ask random people to fill out the questionnaire two things were considered; the number of questions and the ease with which they could be answered. The questionnaire was estimated to take about ten minutes to fill out and this was often the case. If

a respondent did not buy clothes on secondhand the questionnaire was more likely to be filled out in five minutes, because one major part was not then supposed to be answered by the respondent.

The part waste sorting/separation include questions that deal with the waste sorting in households. The second part (buy and dispose of clothes) deals with questions like how often do the respondents buy new clothes and how they dispose of clothes that are worn out/not worn out. This is one of the bigger parts of the questionnaire. Respondents giving to charity must consider a number of statements in why they chose this option. The third part is about buying/not buying clothes in secondhand shops. The fourth and last part is final questions about the respondent for example age, ethnicity and highest level of education.

### *Implementation*

The questionnaires were distributed during seven days in the following places: the city library, the central station, SLU and CEMUS. When handing out questionnaires we simply asked random people passing if they wanted to participate in our study. The respondents then filled out the questionnaire at the spot and then handed it back to us. At least one person was available to answer questions and clarify the questionnaire if the respondent desired it. It happened quite often that the respondents did not understand a particular question and needed guidance in the filling out process. Also, respondents who did not fully master the Swedish language received some extra attention.

Convenience sampling refers to that respondents are chosen with the criteria that they are the nearest and most convenient persons (Robson, 2011). The sampling continues until the desired sample size is reached. Due to the budget of this project other sampling methods cannot be carried through. Mailed questionnaires, telephone interviews or online surveys all have financial costs attached to them (Fink, 2009). The pilot questionnaire was tested on five people selected by the authors of this study. Pre-testing questionnaires can help and improve the questions if necessary. This is one way to test and see if the questions are clear and simple (Robson, 2011).

### 2.3.3 The focus group

In data collection focus groups are currently a popular method within fields of applied social research (Robson, 2002). Focus group is a group interview where the participants discuss a specific topic. The discussion is often guided by the researcher and the group discussion is open-ended, typically lasting for an hour or two. Suitable number of participants is 8-12 persons (Robson, 2002, p.285).

The authors had on beforehand on the basis of the questionnaire prepared questions that would guide the focus group discussion. Five questions were prepared to be asked during the discussion, although more questions had to be asked in order to guide the respondents and resume to the subject when the conversation began to deviate from it. The prepared questions had three main topics:

- ✓ **What** are your views on secondhand for garments?
- ✓ Do you shop for garments in secondhand shops?
- ✓ **What** do you do **when** you need to dispose of garments?

Questions of this kind help in understanding *why* consumers behave in a certain way, providing a more detailed and free dialogue. The discussion began with a short presentation

of the authors and the study. The expectation from the focus group is to complement the questionnaire and further understand consumers' attitudes and behavior.

### *Implementation*

In the focus group for there were **seven** participants, a mix of Swedish and international students at SLU. The place selected for the meeting was close to the university, SLU, in order to make it more accessible for the participants. The authors described the procedure of the coming hour after which the participants shortly gave a summary about themselves and their background. Among the respondents in the focus group six nationalities were represented. The mix of nationalities led to a fruitful discussion with comparisons between countries as well as cultural aspects. Out of the seven participants two were males. The authors tried to have a more even distribution between the sexes, but were unsuccessful in this aspect. During the discussion the participants had the opportunity to question each other's viewpoints and reflect on different perspectives and this led to the participants having to reason and argue for their different standpoints.

## 2.4 Data analysis

After the data is collected it has to be analyzed and interpreted, as raw data does not say much in its pure form (Robson, 2002). Qualitative analysis is for data in non-numerical form (focus group) and quantitative analysis is for other data, transformable into numbers (questionnaire). This section starts with a more in-detail description of the quantitative analysis. When dealing with quantitative data the right tools are needed as the data covers many areas (Robson, 2002). In this study *single-transfer coding* is used, minimizing the chance of error. *Single-transfer coding* is when the response is already in the form it is entered into the computer, in this case it is an Excel worksheet, suitable when investigating attitudes and other scales. In the questionnaire coding boxes have been included to facilitate the *single-transfer coding*. When the data is set the next step is to start the data analysis, commonly divided into two parts: *exploratory* and *confirmatory*. In this study the approach is exploratory, trying to find out what the data tells us. Quantitative analysis is almost synonymous with statistics according to many social scientists (Robson, 2002, p.400).

### *t-test*

One concern in social research is the relationship between variables and “*to say that there is a relationship between two variables means that the distribution of scores or values on one of variables is in some way linked to the distribution of values on the second variable*” (Robson, 2002, p.416). In the quantitative data analysis part t-test is used to assess if the means of two groups differ statistically. This kind of analysis is appropriate when comparing the means of two groups (Robson, 2002). The t-test can be used to judge the difference between means in relation to the variability or spread of the scores. The choice of confidence coefficient is 95 percent and the mean value is calculated from the questionnaire answers. The statistical analysis states if there is a positive or negative difference between the groups (alternative hypothesis), or if there is no difference at all (null hypothesis). The result shows if the null hypothesis can be rejected and keep the alternative hypothesis, stating that there actually is a difference. The 95 percent confidence coefficient is appropriate when there is a suspicion even prior to the analysis that the difference between the groups appears in a certain way. In the hypothesis used there is a suspicion of a difference in some and in others it is unclear if a difference exists, hence a number of formulas are used when conducting the t-test analysis. A common value to use in this type of t-test analysis is a 5 percent significance level. The level of significance decides whether or not to reject the null hypothesis. The significance level describes the risk/probability there is to reject the null hypothesis. Upon completion the t-test

results in a p-value indicating if the difference is statistically significant or not. Any value below the 5 percent significance level can be interpreted as a significant difference between the compared groups exists. The difference of interest to investigate is for example between males, females, ages, income and background. In part 5.1.5 the results from the t-tests are presented using a number of different hypotheses.

### *The focus group*

Moving on to the data analysis of the qualitative data, the analyst need to adapt a more systematical approach as humans are bias and have deficiencies related to the problem they have as observers (Robson, 2002). The data from a focus group very much depends on the dynamics of the group participants. What must be taken into account is the context and circumstances of the data collection when analyzing and interpreting the data obtained. When analyzing qualitative data no statistical test is used. Rather is it a form of summary on what was said during the focus group and the information is used as a complement to the quantitative data analysis. There are a few methodological issues that can arise from focus groups like the skills of the moderator, the focus group may be a poor indicator in attitudes and the fact that it is difficult to generalize data obtained. Other issues might for example be that some participants talk more than others.

Another word for truth is validity (Silverman, 2010). The data obtained from the focus group is taped and transcribed, thus open for further inspection. Focus group data is due to its nature complex to transcribe (Bloor *et al.*, 2001). In academic research a thorough transcription of the tape recording is necessary, otherwise the richness of the data may be lost. In this study all recorded speech was transcribed and the identification of the speaker was identified by repetition of names from the moderators during the discussion.

## 2.5 Reliability and validity

To ensure the quality of a research the concerns of reliability and validity are important (Bryman, 2008). One can obtain reliable and valid survey results if the questions asked have a base in theory (Fink, 2009). The concepts are related to each other in the sense that one cannot have valid results without the results also being reliable (Bryman, 2008). If consistent information is gathered one has a reliable survey result (Fink, 2009). Stability is a key term for reliability, if the measures fluctuate over time it means that the measure is not reliable. Reliability also has to do with whether or not the results are repeatable (Bryman, 2008). If the result is not repeatable it is not reliable.

This study has a multi-strategy design with two data collection means which helps strengthen the validity. Validity refers to whether or not the indicators selected measure the concept (Fink, 2009). One way to ensure valid information is obtained is to collect data with multiple methods (Robson, 2011). Since this study is concerned with consumer behavior and attitudes it is noted by the authors that results may fluctuate over time, due to changes in trends and consumption (for example during recessions consumption decreases). If the study were to be repeated in the future the results would not be expected to be unchanged.

## 2.6 Ethical aspects

This study deals with consumption, which is closely connected to sustainable development and ethics. Ethical aspects also need to be considered in the research process (Robson, 2002). The values of the researcher might be involved in the research and it can be difficult to guarantee objectivity. By approaching consumers with questionnaires some responsibilities lay on the researcher regarding ethical aspects. By randomly approaching consumers and

asking if they wanted to fill out the questionnaire it was their decision to participate or not, and if they did not want to participate their choice was respected. If they decided to participate the responsibility was on the authors to try and fully explain what they were filling out and how the information was to be used. A paper summarizing the study was handed out to all the respondents and on the paper was also the contact information of the authors and the respondents were encouraged to contact the authors if any questions came to mind or if they want to receive the study upon completion. The respondents were promised anonymity and no names or personal information is revealed by the authors, and this was clearly communicated when handing out questionnaires. No information about the true nature of the research was withheld and all the participants have given their consent in this study, both the respondents of the questionnaires and the participant of the focus group. The focus group participants also received the paper with the summary and contact information. The focus group participants are also anonymous.



### 3 Literature review and theoretical perspective

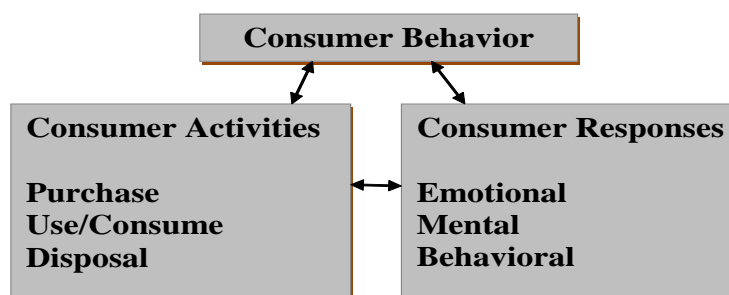
This chapter offers a theoretical review and a selected conceptual framework which is used in the analysis of the data. The chapter starts with an introduction to consumer behaviour and the CDP model is explained in detail with its seven different stages. Then the reader learns about variables like values, attitudes, income and how these variables concern the decision process when consuming. The selected models are thought to be useful for the objectives of this study.

#### 3.1 Consumer behavior

*“Consumer behavior entails all consumer activities associated with the purchase, use and disposal of a good or services, including the consumer’s emotional, mental and behavioral responses that precede, determine or follow these activities”* (Kardes *et al.*, 2011, p. 8).

*“It is the study of the process involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires”* (Solomon, 2006, p. 7).

These two different definitions of consumer behavior are just a few of many. Consumer behavior is a wide subject covering a lot of ground, and it involves feelings and thoughts of people in the purchasing process (Solomon, 2006; Peter & Olson, 2010). Consumer behavior is a dynamic subject and includes both interactions and exchanges (Peter & Olson, 2010). Traditionally the theory was developed because marketers wanted to know *“why people buy”*, with intentions to create strategies in how to influence consumers (Blackwell *et al.*, 2006, p. 4). Without a deeper understanding of consumers it is difficult for companies to meet their expectations (Kardes *et al.*, 2011). The understanding includes the whole spectra, from the activities prior to the purchase, during and after consumption that consumers engage in (Figure 4). Today most marketers recognize that consumer behavior is not only what happens in the moment a consumer hands over the money (Solomon, 2006). It is an ongoing process.



**Figure 4 Model - Overview of consumer behavior inspiration from Kardes *et al.*, (2011, p. 8)**

The figure illustrates that it is possible to see that the term consumer behavior consists of different parts and that these parts are connected to each other. For example, consumer activities and consumer responses consists of different subheadings. *Purchase activities* include everything done before the purchase and the activities which through the consumer acquire goods and services (Kardes *et al.*, 2011). *Use activities* refers to how, when and where the consumption takes place. Consumption can for example take place immediately after purchase or it can also be delayed. *Disposal activities* concerns ways in how the consumer gets rid of packaging and products, this includes for example recycle, reuse, giving to charity

and resale. *Emotional response* reflects the emotions, feelings and mood of the consumer. *Mental response* is for example about the thoughts, beliefs and attitudes the consumer has regarding the product or service. *Behavioral response* includes the actions and overt decisions throughout the purchase, use and disposal. To give an example, before a car purchase the consumer will likely discuss with family and friends, test drive the car or read about the car on the manufacturers website. All these actions demonstrate behavioral responses.

Consumers are either individual or organizational (Kardes *et al.*, 2011). Goods and services are purchased by individual consumers to satisfy their own needs or the needs and wants of others. Organizational consumers also purchase goods and services in order to produce other goods or services, resell or help manage their organization. The different activities of consumer behavior can be broken into purchase, use and disposal activities. The consumer response or stimuli might differ depending on if the consumer is purchasing, using or disposing a single product or service.

## 3.2 The seven stages of the consumer decision process model

The consumer decision process (CDP) model is a tool developed in order to understand the mind of the consumer by including communication, product mix and sales & strategies (Blackwell *et al.*, 2006). The model consists of seven stages the consumer goes through when making decisions and the different stages are:

1. *Need recognition*
2. *Search for information*
3. *Pre-purchase and evaluation of alternatives*
4. *Purchase*
5. *Consumption*
6. *Post-consumption evaluation*
7. *Divestment*

The CDP model can be divided into three main parts: *pre-purchase decisions*, *decision during purchase* and the *post-purchase process*. These seven stages have been the primary focus when studying consumer behavior and the different factors influencing the decisions of the consumers' at each stage.

### 3.2.1 Need recognition

A customer need or problem is the starting point of any buying decision (Blackwell *et al.*, 2006). When something is bought by a consumer the consumer believe that the ability of the product to solve a problem is worth more than the cost of the product. When selling a product the first step will thus be recognizing a need. Consumers also have desires as well as needs. What marketers want to achieve is to fulfill the consumers' desires. The line between cost and what the target markets can meet the expense of is fine. What marketers need to do is to solve consumer problems, if the product or service fails to do so it will not sell no matter how many attributes the product/service has.

Having too many items in the shops can confuse the consumers and total margins is reduced by increased buying and operation costs (Blackwell *et al.*, 2006). The best retailers will only stock items that consumers want to buy, and inventory turns will be faster achieved. Important is also to monitor consumer trends because these change and this means that the needs and problems also change. Expected to also change is the needs and buying habits the consumer has through the different stages of life. With the expectation of a rising income, desire will

increase. What marketers often do is to communicate a need. Marketers do not really create a need but they can raise awareness of unperceived problems or needs that the consumers might have.

### 3.2.2 Search for information

Searching for information and solutions begins when the need for recognition occurs (Blackwell *et al.*, 2006). The search may be internal for example retrieving knowledge from the memory or external for example collecting information from family. The search for information can also be passive or active. The search in length and depth depends on variables such as social class, income, personality, past experiences and prior brand perceptions. When being unhappy with a brand or product the consumer will expand the search and consider other alternatives.

Being exposed to information through external search the consumer begins to process the stimuli. This process includes the following different steps:

- ✓ *Exposure.* The senses will be activated and processing begins when exposure occurs.
- ✓ *Attention.* It is more likely that the consumer will pay attention if the message and content is relevant. Selective attention is common at this stage as consumers ignore commercial persuasion.
- ✓ *Comprehension.* If the attention of the consumer is caught the message will be analyzed further against categories of meaning kept in memory.
- ✓ *Acceptance.* The message can either be accepted or dismissed as unacceptable once comprehension occurs. Dismissed as unacceptable is a common outcome.
- ✓ *Retention.* Acceptance and storage in memory of the new information is the goal of any persuader and in such a way that for future use it is accessible.

Only a few of all the messages competing for the consumers' attention will be comprehended, accepted and retained. Favorable brand image and brand equity help firms to get their messages into this division.

### 3.2.3 Pre-purchase and evaluation of alternatives

During the search process alternative options were identified and in this stage these options are evaluated (Blackwell *et al.*, 2006). Knowledge about different brands and products will be compared with what the consumers consider most important. New or preexisting evaluations stored in memory will be used by the consumer to select services, products, brands and shops that probably will satisfy the consumer regarding purchase and consumption. Individual and environmental influences determine how individuals evaluate their choices. When evaluating alternatives some attributes are salient and some are determinant. Salient attributes like price and reliability are potentially most important to the consumers. Determinant attributed is about which brand or shop the consumer is most likely to choose. Attributes like price, quality and size is often observed by the consumer and changes might lead to the brand and product choice being affected. For example, if the price increases of a brand the consumer will often evaluate the motive behind the increased price.

### 3.2.4 Purchase

Once the decision has been made to purchase or not to purchase the consumer moves through two phases (Blackwell *et al.*, 2006). In the first phase the consumer chooses one retailer over another. The second phase includes in-shop choices, influenced by for example salespersons and product displays. Sometimes consumers will buy something different than what intended,

or not buy anything at all. This has to do with what happens during the choice or purchase stage. To prefer one retailer but choose another might have to do with opening hours or traffic flow. Inside a shop a sales person can influence the consumer to try a different product or brand, using the tools like price discount.

### 3.2.5 Consumption

Consumption is the point when the consumer uses the product and this can occur after the purchase is made (Blackwell *et al.*, 2006). Regarding consumption it can either take place immediately or be delayed. The usage of a product will affect the level of satisfaction and the likeliness that the consumer will buy that typical brand or product in the future. If the consumer uses and maintains the product carefully another purchase might not be needed for a good while as the product will last longer.

### 3.2.6 Post-Consumption evaluation

In this stage the consumer will feel either satisfied or dissatisfied (Blackwell *et al.*, 2006). Satisfaction will happen when the consumer feels that perceived performance is matched by expectations. If performance and experience fail to satisfy expectations dissatisfaction will take place. Evaluations will be stored in the memory of the consumer and for future decisions these outcomes will be referred to, thus are these outcomes significant. Most important when determining satisfaction is consumption, how products are used by the consumers'. Sometimes a good product is not used properly and this can lead to dissatisfaction. It is not unusual that after purchase the consumer will ask if they really made a good choice, questions of this kind can be referred to as *post-purchase cognitive dissonance*. The level of *post-purchase cognitive dissonance* will be higher the higher price. Another important part of how a consumer evaluates a product or transaction is emotions. One definition of emotions is for example "*a reaction to cognitive appraisal of events or thoughts*" (Blackwell *et al.*, 2006, p. 84).

### 3.2.7 Divestment

The final stage of the CDP model is divestment, and this part is about the different options the consumer has in disposing /getting rid of a product (Blackwell *et al.*, 2006). For some products, having to dispose the packaging and product literature and the product itself is necessary. Regarding these products, environmental and recycling concerns matter in the different divestments methods of the consumer.

## 3.3 Variables shaping the decision process

The decision process of consumers is dynamic and complex and continues to interest researchers and strategists (Blackwell *et al.*, 2006). With so many available options consumers are usually quite rational in their decision making. There are a few variables that influence the decision making process and these variables are presented in the following text. The different categories presented are *values*, *attitudes* and *culture*, *income* and *social class*.

### 3.3.1 Values

One definition of a value is "*a belief that some condition is preferable to its opposite*" (Solomon, 2006, p.136). In consumption activities a person's set of values plays a significant role. Many products and services are purchased by consumers because they believe that a value-related goal will be reached through the purchasing of products and services. Consumers sharing a belief system are to an extent a function of individual, cultural and social forces. In every culture a set of values can be found and these values are communicated to its members. What differentiates cultures is the ranking of values, the relative importance.

Every culture has a value system, based on the set of rankings. Endorsement of these values may not be equal for every individual, on the other hand it is usually possible to classify a set of core values and this set uniquely defines a culture.

Despite the high level of importance, values have not been widely applied when examining consumer behavior (Solomon, 2006). Researchers often makes distinctions between *cultural values* such as happiness, *consumption-specific values* such as prompt service and *product-specific values* such as durability. In this way it is easier to differentiate brands within a product category. In the CDP model, values are particularly important in stage one: *need recognition* (Blackwell *et al.*, 2006). Driving consumer motivations are often values and values are the lasting motivations consumers seek in their lives (Solomon, 2006; Blackwell *et al.*, 2006).

### 3.3.2 Attitudes

In consumer behavior, one of the most important concepts is attitudes (Peter & Olson, 2010). There are many definitions of attitude and one is “*a person’s overall evaluation of a concept*” (Peter & Olson, 2010, p. 128). An attitude tends to last over time and can therefore be seen as enduring (Solomon, 2006). Consumer can have different attitudes toward various social and physical objects, for example brands, people and products (Peter & Olson, 2010). Consumers’ behavior and actions is something the consumers can have attitudes toward, for example why a certain sweater was bought can be questioned by the consumer. An attitude consists of three components: affect, behavior and cognition (Solomon, 2006, p. 237). These components together create the *ABC model of attitudes*. Affect is about how the consumer *feels* about an attitude object. Behavior deals with regard to an attitude object a person’s intentions to *do* something. Cognition is about the *beliefs* the consumer has regarding an attitude object. Knowing, feeling and doing are what this model emphasizes and the interrelations between these parts. If it is of interest to know the consumer attitude toward a product all the three components have to be taken into consideration.

*Salient beliefs* are activated beliefs and only a few beliefs are activated and considered in a conscious way (Peter & Olson, 2010). The reason only a few beliefs are activated is because the cognitive capacity of people is limited. A person’s attitude towards an object is created by their salient beliefs, those activated at the time and in a specific context. If activated a consumer’s attitude toward a product can be influenced. Purchase displays, reduced price and consumers’ moods can for example influence which beliefs that will be activated, thus becoming salient determinants. The salient beliefs vary over time for some products or situations. Salient beliefs about a product may be activated at different times in different situations. Consumer attitudes can change over time through variations in the set of salient beliefs. A stable set of salient beliefs means more stable consumer attitudes toward objects.

### 3.3.3. Culture, income and social class

Culture is the “*set of values, ideas, artifacts, and other meaningful symbols that help individuals communicate, interpret, and evaluate as members of society*” (Blackwell *et al.*, 2006, p.426). What culture provides people with is a sense of identity and within society an understanding of acceptable behavior. Dressing and appearance is an important characteristic influenced by culture. Distribution of wealth is often of great interest to researchers and marketers (Solomon, 2006). The distribution of wealth reveals market potential and who has the greatest buying power. In most countries the distribution is uneven across the exciting classes of the society. Consumption preferences change with income and sometimes it can be more interesting to investigate the way money is spent rather than how much. In developing

countries the larger part of the salary will be spent on food for the household. In industrial countries in the west more money is spent on consumption other than food, for example clothes. With rising income people afford to eat out more often and have the possibility to eat at more expensive restaurants. Social class is difficult to measure and depends on a number of factors. Distinguishing people from different classes is difficult also because sometimes it is not easy for consumers to place themselves in a certain class. Social class is a term used to describe the overall rank of people in the society. Measuring social class in the past is often not valid today due to the different family constellations in the society today, as opposed to the traditional core family.

Regarding consumer behavior and social class, working-class tends to evaluate products through sturdiness or comfort rather than fashion and style (Solomon, 2006). Working-class is also less likely to try new products or experiment with new styles. People living in suburbs tend to be more concerned with fashion and body image. More affluent people care about their diet and eat and drink more diet products. This means that marketers can segment markets using class, different habits and consumer behavior can be distinguished depending on city/small town/suburb.

## 4 Background empirics

The background empirics provide a section with previous research results, and brief overview of forces behind clothing consumption and an explanation to the waste hierarchy.

### 4.1 Previous research results

In the past the Swedish population had a culture of patching and mending clothes when they became worn out or broke (Ungerth, 2011). Today however that culture has been replaced and Swedish consumers throw away clothes prior to the clothes becoming worn out or if they are being out of style. Many consumers perceive the lifetime of clothes to be shorter than before and the throw-away fashion consumption is increasing, especially amongst the younger consumers (Joung & Park-Poaps, 2011). The older generation is better in reusing and recycling clothes than the younger generation of consumers (Ekström *et al.*, 2012). However, the increased awareness amongst consumers of the environmental impact of their consumption has led to more consumers considering and reevaluate their consumer choices (Shaw & Newholm, 2002). Consumer choices that can be reevaluated can for example be to consider whether or not to reduce the consumption levels and purchasing items in secondhand shops.

Consumers claim concern for the environment but their consumption behavior does not reflect awareness or high priority of environmental values (Ekström *et al.*, 2012). This gap between experienced values and consumption is referred to as a “*value action gap*” (Ekström *et al.*, p. 109, 2012). From this finding Ekström *et al.*, (2012) assume that the consumers do not need more information about the environmental impact from the consumption of clothes. Rather the consumers need information about different kinds of actions one can take in order to act more environmental friendly. Information about recycling programs is important as it increases the recycling participation amongst consumers (Joung & Park-Poaps, 2011). The value-action gap is larger amongst younger consumers and an explanation for this can be the difference in the upbringing environment of different generations (Ekström *et al.*, 2012). The older generation was brought up in an environment with more scarce resources and the importance to save was much greater. Younger consumers are more sensitive to different fashion trends and may dispose of clothes even though they are fully usable. Younger consumers purchase more clothes more often, do more impulsive purchases and they are more likely to spend money on fast fashion than older consumers (Pentecost & Andrews, 2010). Younger consumers, especially young females, are more impulsive in their fashion purchases than older consumers. Older consumers care more about the quality of the clothes as opposed to younger consumers and wear them until they are worn out to a greater extent (Ekström *et al.*, 2012). Older consumers purchase clothes less often than younger consumers and by this the older generation is more environmental friendly. The price of the clothes is also a critical factor for consumers when making the purchase decision. Younger consumers are more price sensitive than older consumers who tend to value the quality of the clothes more than the price.

Fashion retailers are introducing new clothing lines every few weeks, offering clothes to a low price, in order to capitalize on impulse purchasing (Bianchi & Birtwistle, 2011). With their fast fashion offerings consumers are encouraged to visit the shops more often as the high turnover makes offerings only appear for a short period. There is also a difference in frequency of shopping between males and females (Pentecost & Andrews, 2010). Females

shop more frequently than males, but males are more likely to spend more money on clothes once they do go shopping.

Through purchasing secondhand items environmental benefits such as reduced greenhouse gas emissions are achieved (Internet, IVL, 2013). Emissions will be saved both from the person purchasing the item as well as from the person who discarded the item. An overall interest for secondhand clothes is growing amongst different consumer groups (Ekström *et al.*, 2012). Environmental concerns is however not one of the main reasons for consumers who purchase secondhand clothes. Younger consumers for example purchase secondhand clothes because they can find fashionable and unique clothes. However, there are also consumers who do not purchase secondhand clothes, who find it unhygienic and have the attitude that it is the consumers with less money who purchase the clothes. Secondhand shops have however become more styled and are not being associated with for example messiness and bad smell to the same extent as before.

Not only is it the manufacturing and the purchasing of clothes that causes negative environmental impacts, the disposal of clothes also affect the environment (Ekström *et al.*, 2012). The condition of the clothes determines to a great extent how consumers choose to dispose of the clothes. Good condition clothes are being sold, traded or given away to friends or family members while worn out clothes are given to charity. To donate clothes to charity is perceived by consumers as a rather easy way to dispose of clothes. The main reasons for donating to charity is not environmental aspects, rather is it to help the less fortunate and a way for consumer to feels better about themselves when clothes can be re-used and thus justify the purchase of new clothes. Unwanted clothes are also being disposed of in the household waste. Low-quality garments often have such a low quality that they are difficult to recycle (Joung & Park-Poaps, 2011).

There is a difference in how consumers recycle different types of products (Bianchi & Birtwistle, 2011). Recycling of, for example, paper and glass varies from textile recycling. The recycling of textiles is associated with donation to charities. If a consumer recycle items such as plastic and paper they are more likely to recycle garments by donating them to charity (Bianchi & Birtwistle, 2011, p. 336) Consumers' awareness of the environment affect the general recycling behavior as well as the likelihood to dispose of clothes in an environmental friendly way, such as donation. People's characteristics, the characteristics of the item and the community characteristics influence the consumer's voluntary disposal behavior (Albinsson & Perera, 2009). An items characteristics such as the economic, sentimental or symbolic value influence the way a consumer disposes of a garment. The items condition also plays a role in how it is disposed of. Individual characteristics of the consumer influence the disposition behavior, examples of this is the consumer's self-concept, experience, values and consumption patterns. Examples of community characteristics are accessibility to secondhand shops, charities and the local infrastructure. The study by Albinsson & Perera (2009) has shown that the items characteristics and the characteristics of the community have greater influence on the disposition than the individual consumer's characteristics.

The post-purchase components of the clothing consumption entails re-use, recycling and discarded (Bianchi & Birtwistle, 2011). Donating clothes to charity, friends or family members is considered by consumers to be the most environmental friendly method (Bianchi & Birtwistle, 2011, p. 336). Even if the main drivers for consumer's disposal behavior are not clear, consumer's environmental attitudes will influence disposal behavior to some extent. Consumer's knowledge of recycling and different disposal options also affects the disposal



behavior. If a community has a recycling program the population is more likely to participate in recycling (Joung & Park-Poaps, 2011). Curbside collection, where the items are picked up, has a higher participation level than drop of sites, where items are left. The convenience access to recycling programs also affects the participation level.

In Sweden the collection of textile waste is carried out by non-governmental actors such as secondhand shops or charity organizations (Tojo *et al.*, 2012). Donations can be left in a secondhand shop or the organization can come and pick up the donations at a person's home (Internet, Myrorna, 2013). The amount of donated textiles in Sweden exceeds the market demand for such clothes (Tojo *et al.*, 2012). As a result a large part of textiles being donated are exported to other countries. Different charity organizations are the biggest actor in facilitating secondhand clothes trade in Sweden. If the textile waste is disposed of in the household waste it is the governments and the municipalities' responsibility to collect and take care of it. The municipalities do not have any responsibilities to recycle the textiles, thus the textiles is most likely to be incinerated. In a survey from 2011 about 1000 Swedish consumers were asked about their attitudes toward a more regulated collection system for clothes (Ungerth, 2011). About 70 percent of the respondents had a positive attitude towards such a collection system. Some 28 percent of the respondents preferred a refund system and 27 percent of the respondents preferred collection with textile containers at the recycling station. Towards both systems 15 percent had a positive attitude.

## 4.2 Forces behind clothing consumption

Clothing is not a private matter as you are seen by others and present yourself through clothing (Miller, 2005). In many societies there is a strong belief that the possessions you have say something about whom you are, "*to have is to be*" (O'Cass & Julian, 2001, p.2). What possessions you have are how you define yourself and your possessions are key symbols for example interests and personal qualities. Previous research on self-image has focused on brand/product preferences and the relation between individual's image and brand image. Self-image and products are linked and consumers are more likely to be involved with products representing their self-image. In the study by O'Cass & Julian (2001) age, gender, person-product image congruency and materialistic values were identified as significant contributors in fashion clothing of individuals and its consumption.

Consumers today motivate their shopping in several ways (Ekström *et al.*, 2012). Shopping is a way to meet needs; to socialize with friends, reward yourself and a way to keep up with the latest trends. Group identity and desired identity is what consumers signal through the clothes purchased. The two terms conformity and distinction are used to describe group identity and desired identity. Conformity is about the human strive to fit in and be a part of society. Distinction deals with the human strive to be special and separate oneself from other through the way you dress. When fashion is spread the distinctiveness will disappear and become more standardized. *Haute couture* (high dressmaking) in the fashion industry is often commercialized through cheap production and this allows more people, often with lower social status to buy copies.

Today it is more difficult and demanding to signal identity through clothes than earlier, this due to the fact that the fashion industry today can be viewed as post-modernistic (Ekström *et al.*, 2012). The meaning of the clothes occurs in relation to other objects or symbols. The combination of the clothes you wear, your hairstyle and other accessories signals your identity. Environment will affect values and attitudes and is also considered to influence consumption behavior over a lifetime (Noble & Schewe, 2003). External events for example

technological innovations, economic changes and political ideologies define consumer attitudes, values and preferences.

## 4.2 Disposal of textile- The waste hierarchy

### *The waste hierarchy*

The desired path for waste treatment is presented in the EU-directive from 2008 (2008/98/EC). The waste hierarchy should be followed in order to ensure that discarded products are taken care of in the most environmental friendly way possible. The waste hierarchy has five steps illustrated in figure 4:



**Figure 5 Model – The Waste Hierarchy (Internet, SEPA, 2012)**

What the waste hierarchy describes is the prioritized order of the best environmental option regarding waste legislation and policy (2008/98/EC). If justified reasons can be provided an exception from the waste hierarchy may be necessary (for example specific waste streams). When applying the waste hierarchy the overall negative environmental outcome is minimized.

The waste policy is intended to lower negative effects on both the human health and the environment (2008/98/EC). A goal for politicians and when forming new legislation should be to make the waste hierarchy easy to practically carry through. If it is followed through in a proper way the amount of waste will decrease. To lower the amount of greenhouse gases is also an incentive to follow the waste hierarchy. For example does one kilogram textile produce about 15 kilogram of CO<sub>2</sub>-equivalents (Palm, 2011). Textile waste can be categorized in four general uses according to Palm (2011, p.9):

- ✓ Reuse
- ✓ Recycle
- ✓ Use for energy
- ✓ Landfill

The quality of the textiles as well as the fashion will decide which waste path the clothes will take (Palm, 2011). For many products in Sweden there is a producer responsibility but this does not apply for the reuse and recycling of clothes despite the environmental benefits. To reuse textile can reduce emissions from both production as well as from the waste management. It can also reduce the environmental impact if the textiles are used as a

replacement or substitute for something that has a larger environmental impact such as industrial rags made of reused textiles that replaces paper towels. Depending on the different recycling methods different levels of environmental benefits can be reached and this makes an accurate estimation of the environmental benefits from the textile recycling hard to reach.

#### 4.2.1 Reuse

The first category can be divided into formal, semi-formal and informal reuse (Palm, 2011). Reuse of textiles prolongs the lifecycle of the product and as a result also prolongs the environmental benefit. Formal reuse can for example be second-hand shops and is done mainly by charity organizations. Formal reuse is the most common way for Swedish consumers to get rid of unwanted clothes that are still in good condition (Ekström *et al.*, 2012). Previous research has shown that older consumers (60-74) are more likely to use formal reuse as a way of disposing of clothes than younger consumers (16-29). Examples of semi-formal reuse are textiles that are traded and sold on websites like EBay or Tradera (Palm, 2011). Semi-formal reuse is an area that has grown, but further research needs to be done in order to understand the extent and spread (Ekström *et al.*, 2012). Informal reuse mostly takes place in homes, where clothes are reused by younger siblings or given to friends (Palm, 2011). Regarding informal reuse previous studies have shown that it is the second most common way for consumers to dispose of unwanted clothes (Ekström *et al.*, 2012). Formal and semi-formal reuse is easier to estimate than the informal textile reuse (Palm, 2011).

Reuse can be a part of either the first or second stage of the waste hierarchy, prevention or preparation for reuse (Palm, 2011). To reuse textiles do not only lower the emissions from waste management but can also reduce new production which really has its environmental benefits. However, the environmental benefits can be hard to estimate due to the complex production lines which makes textile production hard to document. Most studies of environmental impact from textile production do not consider the whole life cycle and may include only estimations of environmental impact.

#### 4.2.2 Recycle

Recycled textiles can be made into new textiles or made into other products (Palm, 2011). Depending on the recycling method as well as what material the recycled textiles replace will create a different environmental impact. In Sweden there is no large scale of recycling textiles but in for example the United Kingdom large scale techniques are developed for sound isolation for cars.

#### 4.2.3 Use for energy and landfill

Textiles can be incinerated with energy recovery and it is the second most common form of waste treatment in Sweden, only charity collection is more common (Palm, 2011). Some incinerators do not accept larger quantities of textiles due to safety reasons. Long textile threads can create an unsafe connection between the storage and the incineration. A way to prevent this is by precutting and shredding the textiles. If the textiles are not used for energy they are most likely to end up being landfilled. A big share of the clothes is thrown away in the regular household waste (Ekström *et al.*, 2012). A previous study has shown that about three percent of the total household waste consists of textiles in Sweden.

## 5 The empirical results

The following chapter is divided into two parts, the *questionnaire* and the *focus group*. In the first part the results from the questionnaire is presented. In total **170** respondents answered the questionnaire through convenience sampling in different places in Uppsala. This chapter starts with an explanation to the improperly completed questionnaire and the remaining part is divided into four sections. The four sections are found in the questionnaire, only presented in a different order in the empirics. The first section is personal information like gender, age and income. Section two is about household waste sorting and section three is buying and disposal of unwanted clothes. The fourth and last part concerns the attitudes of the respondents to purchasing secondhand clothes. The questionnaire can be found in Appendix 1 in the end of this thesis.

In the second part of the chapter the result from the focus group is presented. The focus group had seven participants with different nationalities. The main topics of the discussion were: views on second-hand for garments, buy second-hand and disposal of clothes. The discussion naturally led into other questions. The main questions were formulated to provide a sense of direction for the participants. The result from the focus group is presented in the empirics in three sections, following the same structure as the main questions mentioned earlier. One clarification to avoid confusion is that respondents are the *questionnaire respondents* and participants are the *focus group participants*.

### 5.1 Results: Questionnaire

#### *Improperly completed questionnaires*

Out of the total number of 170 respondents did 53 percent fill out the questionnaire correctly, thus 47 percent of the questionnaires were improperly completed. If the respondent made some kind of mistake in the completion of the questions the questionnaire is considered to be improperly completed. The following scenarios are classified as mistakes: the respondent only filled out part of a question and the respondent answered/did not answer a question that was supposed/not supposed to be answered according to the instructions. Questions that were improperly completed were taken out from the Excel worksheet. In the worksheet the raw data is analyzed.

Four questions were highly represented as being incorrectly completed by the respondents. Three of these questions were number 7, 11, 14 and common for these questions is that all three had multiple choice answers. Question 13 was also highly represented as being incorrectly completed. The questions can be found in Appendix 1 on page 55. Based on previous answers some respondents were not supposed to answer question 13, but still a large number did. If a respondent has filled out a question improperly the answer has been removed from the questionnaire and is not included in the calculations. Number 7, 11 and 14 are though still included in the calculations because a high number of respondents answered these questions improperly and it is considered better to include the answers for the outcome of this study.

Out of the 170 respondents 129 were females and 40 were males, one respondents gender is unknown because the question was not answered. The uneven distribution of gender is considered unfortunate and something that quickly came to awareness by the authors. Efforts were made to include more male respondents but without any greater success. Males were not so interested in participating and filling out the questionnaire, especially older men. Because

of the uneven distribution of respondents it may not be representative when comparing and discussing differences. The same applies for the uneven distribution amongst the respondents and the cultural backgrounds. Since the bigger portion has a Swedish ethnicity and the respondents with a foreign ethnicity come from so many different places, it is difficult to draw general conclusions from this.

### 5.1.1 Personal information

#### *Age and gender*

In total 129 respondents were females, their average age was 29,5 years. There were 40 male respondents, their average age was 30,9 years. Proportionally there were more females than males with a higher age amongst the respondents. Out of the male participant only two were over the age of 56 (5,0%) and regarding women there were 13 respondents over the age of 56 (10,1%). In the table below the respondents age has been divided into different age ranges to further display the age distribution.

**Table 1 Age distribution**

Age range	Number of respondents
-25	87
26-35	46
36-55	22
56-	14

As can be viewed in the table above, respondents who are 25 years of age and younger are over represented. Respondents between the ages 26-36 years were also a large group represented in this study. Respondents who were 56 years and older were the smallest age segments represented by the respondents.

#### *Household size*

The average household size was 2,6 persons per household. Two person households were the most common size, represented by almost one third (31,5%) of the respondents. One person households was the second most common household size (30,4%). About one fourth of the respondents (25,6%) had a household size of four or more persons and only a small number of respondents (12,5%) had a household size of three persons. The high number of participants having a one or two person households can be explained by the young age of the participants. The average age of participants with the household size of one or two persons was 32 years. Almost 40 percent of the respondents with a household size of one or two persons are students with ongoing college/university studies. This can also be an explanation to the high number of small households amongst the respondents.

#### *Upbringing environment*

The upbringing environment was even amongst the respondents, with the same number of people growing up in rural areas (36,4%) as in big cities (36,4%). Respondents growing up in small towns were slightly under represented (27,3%).

#### *Education*

The average level of highest education was ongoing college/university studies, represented by more than half of the respondents (54,8%) which can be correlated to the young age of the respondents. Almost one fourth of the respondents had completed college/university studies. A little more than one fourth (25,3%) had completed college or university studies.

### *Income level*

More than half of the respondents (63,0%) had an income level after taxes between 0-10 000 SEK. The high number of respondents representing a low income can be explained by the young age of the respondents, which in turn can be correlated to the high number of respondents who still have not yet finished their education. The second most common answer was an income level between 10 000 - 15 000 SEK (12,7 %). Only a few percent of the respondents (6,1 %) had an income level between 15 000- 20 000 SEK while a few more (9,1 %) had an income level 20 000-25 000. A few respondents (7,9 %) had an income level over 25 000 SEK. In the table below the income level related to the age of the respondents is displayed.

**Table 2 Income level in relation to age**

<b>Income level</b>	<b>0-10 000</b>	<b>10 000- 15 000</b>	<b>15 000- 20 000</b>	<b>20 000- 25 000</b>	<b>&gt; 25 000</b>
<b>Age 0-25</b>	<b>71</b>	<b>6</b>	<b>1</b>	<b>4</b>	<b>1</b>
<b>Age 26-35</b>	<b>29</b>	<b>7</b>	<b>3</b>	<b>4</b>	<b>3</b>
<b>Age 36-55</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Age 56 and older</b>	<b>1</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>3</b>
<b>7 did not answer</b>					

The income level is lower among young people. For example represent respondents who are 25 and younger almost 70 percent, and people between the ages 26-35 almost 30 percent, the income level 0-10 000 SEK. Many of the young respondents clarified during the filling out of the questionnaire that the student loan was their only income, thus they had an income level of 0- 10 000 SEK.

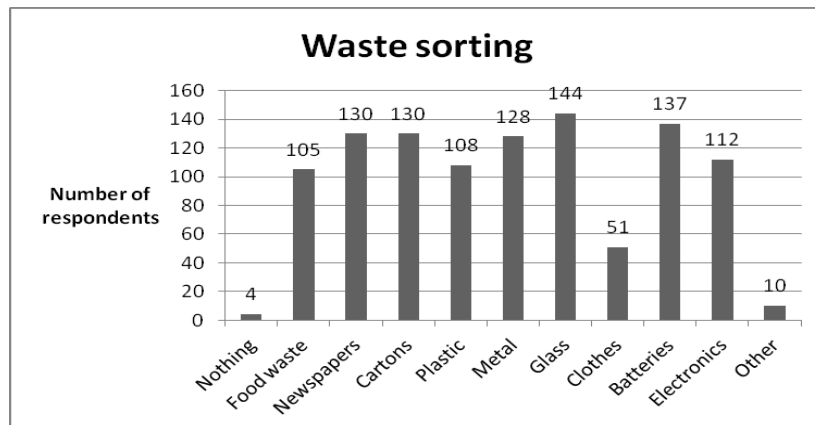
### *Ethnicity*

Out of the 170 respondents 114 (67,1%) had a Swedish ethnicity. Less than one fifth of the respondents (18,2%) had a foreign background and there were 25 respondents (14,7%) who did not answer the question regarding ethnical background.

21 different kinds of origins are represented in this study. It would be even more interesting have a more even distribution of ethnicities and not such a large proportion of people with a Swedish background. It was noted by the authors that there was a number of consumers who did not want to participate in the study due to their limitations in the Swedish language. The questionnaire was not translated into other languages, had it been could presumably more people with a foreign ethnicity answer the questionnaire.

### **5.1.2 Waste sorting**

The average respondent selected 6,4 items on the question about waste sorting. In the bar graph below it can be viewed that clothes is underrepresented compared to the other kinds of waste sorting.



**Figure 6 Waste sorting**

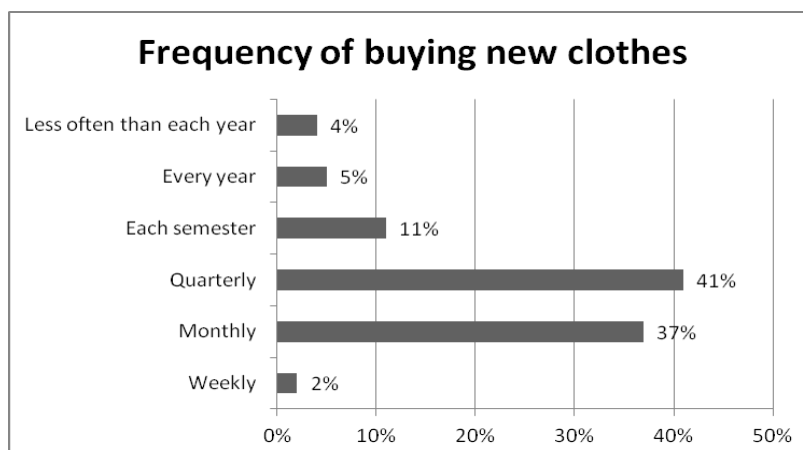
Women sorted on average almost one item more than men, 6,6 items per female versus 5,9 items per male. There was also a difference in how many items the respondents sorted regarding the different age segments, younger respondents tended to sort less items compared to older respondents. Respondents who were 25 years and younger sorted on average 5,6 items, respondents between the ages 26-35 sorted 6,7 items. Respondents between the ages 36-55 sorted on average 8,2 items and respondents who were 56 and older sorted on average 7 items.

Ten respondents reported that they sorted other items beyond the given choices in the questionnaire. Examples of additional waste being sorted were light bulbs, medicine, PET bottles, construction materials and garden waste.

### 5.1.3 Purchase and disposal of clothes

#### *Purchase new clothes*

The most common answers amongst the respondents were that they were buying new clothes quarterly (40,8 %), the second most common answer was buying new clothes monthly (37,4 %), and thirdly buying new clothes each semester (10,9 %). A few respondents bought new clothes every year (4,6 %) or more seldom than that (4,0 %). Only a few (2,3 %) bought new clothes every week. In the figure below the purchasing frequency of clothes is displayed.



**Figure 7 Frequency of purchasing new clothes**

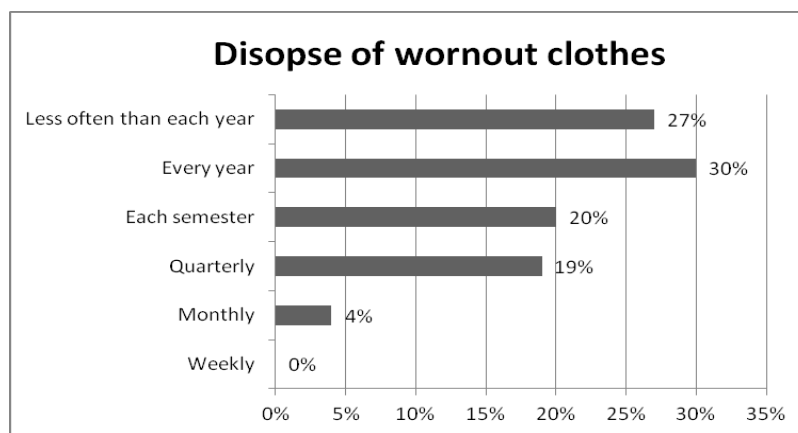
Only four respondents answered that they bought new clothes every week, their average age was 22,5 years. Most respondents answered that they bought new clothes quarterly, the average age here was 31,9 years. The second most common answer was to buy new clothes

monthly, the average age was 55,4 years. To buy new clothes each semester was represented by 19 respondents with an average age of 36,3 years. The average age of the respondent who bought new clothes every year or less often than that was 45,5 years.

The most common answer for male participants were that they bought new clothes quarterly and the second most common answer was each month. For female participants the most common answer was that they bought new clothes each month, and the second most common answer was quarterly.

#### *Worn out clothes*

Regarding the question of how often the respondents disposed of clothes that were worn out, about one third (29,7 %) answered that they dispose of clothes each year, this was the most common answer. The second most common answer (27,4 %) was that the respondents dispose of clothes more seldom than each year. None of the respondents disposed of worn out clothes on a weekly basis. In figure 8 the respondents answers regarding frequency of disposal of worn out clothes is displayed.



**Figure 8 Disposal of worn out clothes**

There were a difference between how often male and female respondents disposed of worn out clothes. The most common answer amongst female respondents was disposal of clothes each year (32,1 %). This was followed by disposal of clothes more seldom than each year (25,2 %) and thirdly disposal quarterly (20,6 %). The most common answer amongst male respondents was to dispose of worm out clothes more seldom than each year (34,9 %). To dispose of clothes each semester and each year was both represented by one fifth (20,9%) of the male respondents. For both males and females, to dispose of clothes each month was the least common answer.

There were differences in the average age of the respondents regarding frequency of disposing of worn out clothes. In table 3 the average age of respondents disposing of worn out clothes is displayed.



**Table 3 Disposal of clothes**

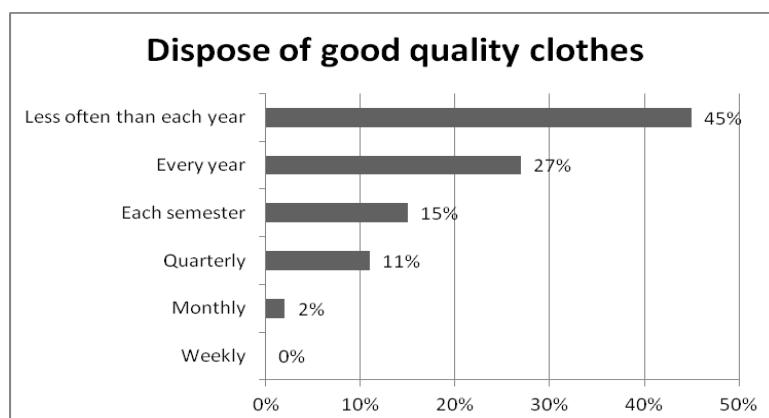
<b>How often respondents get rid of clothes that are worn and/or broken (except socks and underwear)</b>	<b>Average age amongst respondents</b>
<b>Weekly</b>	0
<b>Monthly</b>	41,4
<b>Quarterly</b>	33,8
<b>Each semester</b>	28,1
<b>Every year</b>	30,1
<b>Less often than each year</b>	30,4

Younger respondents tended to dispose of worn out clothes more seldom compared to older respondents. The average age differed more than ten years between respondents who disposed of worn out clothes monthly and less often than each year.

On the questions about what respondents do with worn out clothes, over one fourth (26,6 %) answered that they threw it in the household garbage. At a close second (25,7 %) respondents used the clothes as rags and cleaning material and one fourth (25,0 %) gave the clothes to charity. A few respondents (15,1 %) claimed that they throw it in the combustible waste at the recycling centers. A small number of respondents (7,6 %) answered “other”, examples of this was; to try and repair the clothes, recycle buttons and zippers and use it on other clothes, sew the clothes into something else, keep them in the attic, sell them on a garage sale or give it to friends, family or charity if the quality was good enough.

#### *Whole and fully usable clothes*

There was a difference between how often respondents disposed of good quality clothes in relation to the disposal of worn out clothes. In figure 9 one can notice that the most common answer was to dispose of good quality clothes less often than each year.



**Figure 9 Disposal of good quality clothes**

For both male and female, the most common answer concerning how often one dispose of good quality clothes was less often than each year, for women (40,0 %) and men (62,8 %). To dispose of clothes each year was the second most common answer for females (28,5 %) and males (33,3 %). The third most common answer however differed between males and females. For females the third most common answer was to dispose of clothes each semester (18,5 %). For males the third most common answer was to dispose of clothes quarterly (7,0 %).

There were some differences in the average age of the respondents regarding frequency of disposing of good quality clothes. In the table below the average age of respondents is displayed.

**Table 4 Disposal of whole and fully usable clothes**

<b>How often do respondents get rid of clothes (except socks and underwear) that are not worn out and/or broken</b>	<b>Average age amongst respondents</b>
<b>Weekly</b>	0
<b>Monthly</b>	31,3
<b>Quarterly</b>	37,8
<b>Each semester</b>	30,0
<b>Every year</b>	28,0
<b>Less often than each year</b>	31,0

The average age of the respondents connected to the frequency of disposing of clothes that is not worn out or broken was fairly even. To dispose of clothes quarterly was the answer which had the highest average age amongst the respondents.

The most common answer among the respondents regarding what they do with good quality clothes they no longer want to have was to give them away to charity (31,3 %). The second most common answer was to give them away to friends and family (29,0 %). Respondents also gave clothes away to secondhand shops for them to sell (18,8 %). Not so many respondents (10,1 %) threw the clothes in the trash. Only a few percent sold the clothes online or sold them in another way. Very few percent answered that they kept all their clothes.

#### *Give away to charity*

Many respondents gave clothes away to charity. The respondents answered a few statements regarding why they gave clothes to charity where they had to answer “yes”, “no” or “no opinion”. In the table below the respondents answers are displayed.

**Table 5 Reasons to give clothes to charity**

<b>I give away to charity because:</b>	<b>Yes</b>	<b>No</b>	<b>No opinion</b>
<b>I want to reduce the environmental impact</b>	<b>89</b>	8	9
<b>I want to help the needy</b>	<b>111</b>	2	5
<b>Others might find the clothes stylish</b>	<b>72</b>	18	12
<b>It's an easy way to get rid of unnecessary excess</b>	<b>85</b>	12	9
<b>It's trendy</b>	3	<b>67</b>	20

Many respondents gave clothes away to charity because they wanted to help less fortunate people. That respondents wanted to reduce the environmental impact was also a claim many respondents agreed with. Not many respondents agreed that it was trendy to give clothes away to charity.

#### *Throw away clothes*

More than half of the respondents (56,5 %) had thrown clothes away in the household garbage during the past year. Less than half (40,0 %) had not done so and a few (3,5 %) did not know if they had or not.

The most common answer to why the 40 percent of the respondents had thrown clothes away in the household garbage was that the clothes were worn out (40,2 %). The second most common answer was that it was the easiest thing to do with the clothes (19,7 %). Many

respondents also reported that the clothes were stained (12,3 %) and soiled (11,5 %). Some respondents claimed the clothes were ugly and they did not think anybody wanted them (9,0 %), and a few percent of the respondents claimed that nobody wanted to receive them. The most common answer to what would make a respondent not throw cloths away was to have a shorter distance to the submission centers (20, %). Assurance that the clothes come to be recycled was the second most common answer (17,1 %). Also better knowledge on where to submit the clothes (16,4 %), to get a reward such as a pledge (15,0 %) and knowledge that the clothes comes to charity (14,3 %) was reasons that would make less people throw cloths away. A few percent would not throw cloths away if they had better storage possibilities at home (8,6 %). Some respondents (7,9 %) answered “other”, other things that would make less respondent throw clothes away were for example information about how the condition of the clothes must be in order for charity organizations accept them, knowledge about how to repair clothes and better knowledge about where worn out clothes can be turned in, not only good quality clothes and.

#### *Different applications for clothes*

The respondents had an overall positive attitude towards different usage of clothes that are whole and usable. A great number of respondents (84,0 %) answers were “yes” to the different suggestions for different applications for clothes given in the questionnaire. Only a few (8,6 %) answered “no” and even less (7,4 %) answered “no opinion” to the different applications. In the table below the answers of the respondents are presented.

**Table 6 Different applications for clothes**

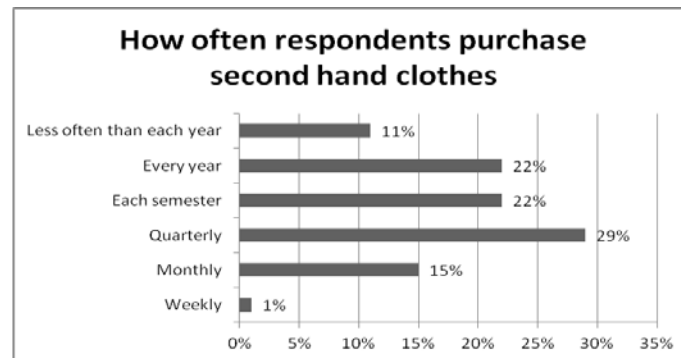
<b>I can imagine that the whole and perfectly usable clothes...</b>	<b>Yes</b>	<b>No</b>	<b>No opinion</b>
<b>Are sold in a secondhand shop</b>	<b>156</b>	<b>6</b>	<b>0</b>
<b>End up with a charity organization</b>	<b>165</b>	<b>0</b>	<b>0</b>
<b>Are sewn into new clothes</b>	<b>139</b>	<b>14</b>	<b>5</b>
<b>Is used in the production of new clothes</b>	<b>133</b>	<b>14</b>	<b>10</b>
<b>Is used in the production of other textile materials, such as carpets</b>	<b>140</b>	<b>12</b>	<b>6</b>
<b>Is used for the production of ethanol/biogas</b>	<b>113</b>	<b>15</b>	<b>23</b>
<b>Is used as insulation</b>	<b>100</b>	<b>24</b>	<b>28</b>
<b>Is used as filler in e.g. furniture</b>	<b>109</b>	<b>23</b>	<b>21</b>

That the clothes end up with a charity organization was an application many respondents could imagine for good quality clothes. That the clothes were being sold in secondhand shops were also an application many respondents could picture clothes being used for. The applications respondents had the least positively attitudes toward were that the clothes were being used as insulation and fillers in for example furniture, however still more respondents answered yes than no to the two statements as can be viewed in the table above.

#### **5.1.4 Purchase secondhand**

##### *Purchase secondhand*

Most respondents (59,2 %) answered that they had purchased secondhand clothes during the past 12 months. Less than half of the respondents (38,5 %) had not bought any second hand clothes during the past year and the remaining (2,4 %) respondents answered that they did not know. In the figure below the purchase frequency of secondhand clothes is presented.



**Figure 10 Frequency of purchasing secondhand clothes**

Many respondents (28,6 %) who have bought secondhand clothes during the past 12 months bought it quarterly. The second most common answer was a tie between buying secondhand clothes each semester (21,9 %) and each year (21,9 %).

Respondents who purchased secondhand clothes had a lower average age than respondents who did not purchase secondhand clothes. The average age amongst the respondents who purchased secondhand clothes were 50 years, amongst respondents who did not purchase secondhand clothes the average age were 62 years. In the figure below the distribution between the genders regarding who purchases secondhand clothes is displayed.

**Table 7 Purchase of secondhand-gender difference**

Purchase secondhand clothes	Percentage of male participants	Percentage of female participants
Yes	54,1	62,5
No	45,9	37,5

Slightly more than half of the male respondents (54,1 %) reported to have purchased secondhand clothes during the past twelve months. More respondents amongst the females had bought secondhand clothes during the past year (62,5 %).

There was a difference in behavior regarding different ethnicities and the purchase of secondhand clothes. In the table below the purchase of second hand and ethnicity is displayed.

**Table 8 Purchase of second hand-ethnicity difference**

Purchasing secondhand	Swedish ethnicity %	Foreign ethnicity %
Yes	66,4	54,8
No	36,6	45,2

Amongst the respondents with a Swedish ethnicity about two thirds (66,4%) had purchased secondhand clothes during the past year. When looking at respondents with a foreign background around half (54,8%) had purchased secondhand clothes.

Regarding the purchase of secondhand clothes and the average income level of respondents, there was a difference in the purchase behavior. In the table below the income level has been connected to the purchasing of secondhand clothes.

**Table 9 Purchase and income level**

Income level	Yes	No
0-10 000	69	33
10 000- 15 000	11	10
15 000- 20 000	7	2
20 000- 25 000	6	8
> 25 000	8	5

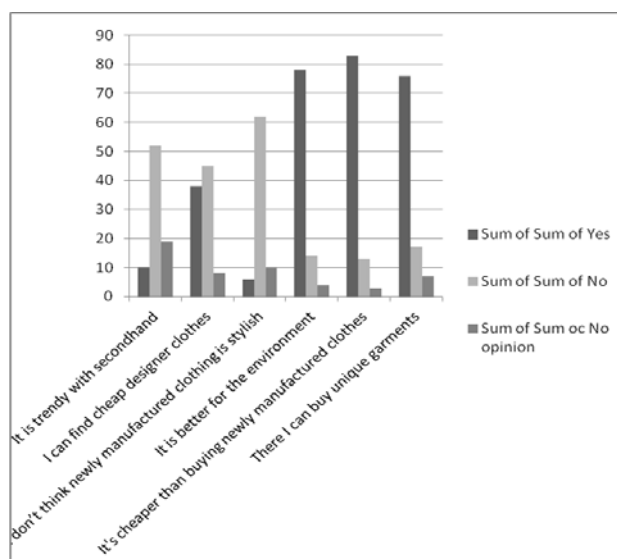
As can be viewed in the table above the income level of 0- 10 000 SEK is overrepresented, 69 respondents of the income level did purchase secondhand clothes while 33 respondents did not. In each of the different income levels more respondents did purchase secondhand clothes than respondents who did not. In the table below the allocation of respondents who did and did not purchase secondhand clothes is displayed for each income level.

**Table 10 Purchasing secondhand clothes and income level**

Income level	% Yes	% No	% Total
0-10 000	67,6	32,4	100
10 000- 15 000	52,4	47,6	100
15 000- 20 000	77,8	22,2	100
20 000- 25 000	42,9	57,1	100
> 25 000	61,5	38,5	100

Only one income level, 20 000- 25 000 SEK, were there more respondents not purchasing secondhand clothes than respondents purchasing secondhand clothes. In the other income levels more than 50 percent of the respondents had purchase secondhand clothes during the past year.

In the table below an overview is given on a question where respondent who has bought clothes on secondhand had to answer statements, where respondents could answer “yes”, “no” or “no opinion” to the different statements.



**Figure 11 Reasons for purchasing secondhand clothes**

One can observe that the top three reasons to why respondents purchase secondhand clothes are that it is cheaper than to buy newly manufactured clothes, followed by that it is better for

the environment and that by purchasing secondhand clothes one can find unique garments. Not many respondents agreed that they purchased secondhand clothes because they did not think that the newly manufactured clothes were stylish. Nor did many respondents agree that it is trendy with secondhand. Regarding the statement that one can find cheap designer clothes a few more respondents did not agree compared to the respondents who did agree.

Respondent who had not purchased secondhand clothes answered to statements in a similar manner as respondents who did purchase secondhand clothes, with the possible answers of “yes”, “no” or “no opinion” to each statement. In the table below an overview is given of the answers to the different statements.

**Table 11 Reasons for not purchasing secondhand clothes**

<b>I do not purchase secondhand clothes because...</b>	<b>Yes</b>	<b>No</b>	<b>No opinion</b>
<b>Secondhand clothes do not last as long</b>	12	18	16
<b>Secondhand clothing is unhygienic</b>	19	17	11
<b>Secondhand clothing is outdated</b>	10	20	14
<b>It's embarrassing to wear secondhand</b>	3	24	15
<b>It's embarrassing to shop in a secondhand shop</b>	2	25	15

Many respondents did not agree with the different statements as can be viewed in the table above. Most respondents did not find it embarrassing to neither wear secondhand clothes or to be seen in a secondhand shop. Only to one statement did more respondents agree than disagree and this was that they found it unhygienic to purchase secondhand clothes.

#### *Purchase satisfaction*

Close to all respondents who had purchased secondhand clothes (95,2 %) stated they felt satisfied after the secondhand purchase. The most common reason to the satisfied feeling was the perceived value for money (39 %), followed by that the clothes were unique (26,8 %), they meet the expectations (19,5 %) and last that it was good quality (12,7 %). A few respondents (2,0 %) answered “other”, but did not specify what that was.

Only a few respondents (4,8 %) who had purchased secondhand clothes reported that they felt dissatisfied. The most common reason for the dissatisfaction was that it had been an impulse purchase (54,5 %). This was followed by bad quality of the clothes (27,3 %), it did not meet the expectations (9,1 %) and lastly that it was not good value for money (9,1 %).

#### **5.1.5 Result t-test**

In this section the results of the t-test are presented where six hypotheses have been selected that are considered to be of interest in this study. The hypotheses have been generated from different questions in the questionnaire and the questionnaire can be found in appendix 1. The null hypothesis is that the answers do not differ and the alternative hypothesis is that the answers differ. The following result has been calculated with the significance level of 5 %.

#### **Hypotheses 1:** (From question 1 and 19 in the questionnaire)

H<sub>0</sub>: There is no difference in the number of waste items that males and females sort.

H<sub>1</sub>: There is a difference in the number of waste items that males and females sort.

On average did females sort 6,5 waste items and males sorted 5,9 waste items. The value from the t-test was calculated to 13,4 percent. Since the p-value is over the significance level of 5 percent this means that there is no significant difference. However it is important to note that the distribution between males and females in this study is uneven which can make the t-test

unreliable. Because of this uneven distribution there will be no further t-test completed regarding the gender perspective.

**Hypotheses 2:** (From question 1 and 20 in the questionnaire)

H<sub>0</sub>: There is no difference in how many waste items younger and older consumers sort.

H<sub>1</sub>: There is a difference in how many waste items younger and older consumers sort.

Younger respondents are considered to be under the age of 25 and older consumers are over the age of 25. Respondent who were 25 and younger sorted on average 5,6 waste items and respondents over the age of 25 sorted on average 8,2 waste items. The result of the t-test was 0,0135 percent which means that there is a significant difference in the number of waste items younger and older respondents sort.

**Hypotheses 3:** (From question 2 and 20 in the questionnaire)

H<sub>0</sub>: There is no difference in how frequently younger and older respondents purchase new clothes.

H<sub>1</sub>: There is a difference in how frequently younger and older respondents purchase new clothes.

In this calculation it has been assumed that younger consumers are the respondents who are 25 and below, older consumers are respondents over the age of 25. The main reason for this age division was so that an even distribution between the populations could be achieved.

First the answers from the respondents regarding the frequency of purchasing new clothes was trans-coded into numbers as following: Weekly (6), Monthly (5), Quarterly (4), Each semester (3), Every year (2), Less often than each year (1). This gave younger respondents an average value of 4,43 and older respondents an average value of 3,79. From the t-test the value of 0,00489 percent was calculated. This value is far below the significance level of 5 percent which means that there is a significant difference between the purchase frequency between younger and older respondents.

**Hypotheses 4:** (From question 3 and 5 in the questionnaire)

H<sub>0</sub>: There is no difference in how frequently respondents dispose of worn out clothes compared with disposal of whole and fully useable clothes.

H<sub>1</sub>: There is a difference in how frequently respondents dispose of worn out clothes compared with disposal of whole and fully useable clothes.

In this hypotheses testing just as the one before the answers from the respondents regarding the frequency of disposing clothes was trans-coded into numbers as following: Weekly (6), Monthly (5), Quarterly (4), Each semester (3), Every year (2), Less often than each year (1). This gave the respondents an average value of 2,5 for disposal of clothes that were worn out and the value 1,98 for disposal of clothes that were whole and fully usable. Here a related t-test was carried out since the same respondents are included in the two populations compared. The t-test value was calculated to 0,00000736 percent and this means that there were a significant difference between the frequency of disposing whole and fully usable clothes and worn out clothes.

**Hypotheses 5:** (From question 12 and 20 in the questionnaire)

H<sub>0</sub>: There is no difference between younger and older respondents regarding the frequency of purchasing secondhand clothes.

H<sub>1</sub>: There is a difference between younger and older respondents regarding the frequency of purchasing secondhand clothes.

The answers from the respondents regarding the frequency of purchasing secondhand clothes was trans-coded into numbers as following: Weekly (6), Monthly (5), Quarterly (4), Each semester (3), Every year (2), Less often than each year (1). This gave younger respondents an average number of 3,3 and older respondents an average number of 3,0. The t-test result was 21,6 percent which means that there is no significant difference between the two populations.

**Hypotheses 6:** (From question 12 and 20 in the questionnaire)

H<sub>0</sub>: There is no difference between younger and older respondents regarding if they purchase secondhand clothes or not.

H<sub>1</sub>: There is a difference between younger and older respondents regarding if they purchase secondhand clothes or not.

The first step in this calculation was to trans-code the answers in the questionnaire regarding if the respondent has purchased secondhand clothes or not, the answer yes was given the number 1 and the answer no was given the number 0. This gave the younger respondents the average number 0,65 and older respondents the number 0,51. The t-test result was 6,18 percent which is a little bit over the significance level of 5 percent which means that there is no significant difference between the two groups.

## 5.2 The focus group

In this part of the empirics a summary of the focus group discussion is provided. The focus group consisted of seven participants, a mix of Swedish and international students and the discussion lasted about one hour. A focus group can provide depth in a study along with the quantitative data. The qualitative data from the focus group is not statistically tested.

The specific topic discussed during the session was secondhand and on beforehand the topic was divided in three parts: views on secondhand for garments, purchase of secondhand and disposal of garments. These three sub questions were formulated in order to direct the discussion and provide a sense of direction to the participants. The moderators (authors) did not speak much during the discussion, only when asking questions or asking for statement clarification from the participants. What can be derived from the discussion is that in some aspects the participants agreed and had similar views, and in other aspects the opinions diverged. Some opinions were rooted in cultural differences and upbringing factors resulting in opinions passed on from parents to children. Also, some participants spoke more than others, but overall the group dynamics invited everyone to speak and the environment was informal. A summary from the discussion is provided in the following sections, divided in the parts of the three sub questions.

### 5.2.1 Views on secondhand for garments

Regarding the view on secondhand for garments the opinions were many and different. The clothes are cheap and it is good that the shops exist because it provides options for the consumers. Some secondhand clothes are trendy with a famous brand and these items can be more expensive. When searching for a specific garment it was not popular to go look in secondhand shops. A problem is that when you go shopping you sometimes look for specific type of clothes. For some participants it is hard to find clothes that fit and the colour desired. More time is needed in a secondhand shop compared to a regular clothing shop since you need to browse and look through the offerings systematically in order to find suitable clothes.



Some said that the shops often are disorganized and complained of a bad smell from “old clothes”. Others said that they are not picky when it comes to the colour and size of the clothes. Most agreed that it was best to shop for secondhand clothes when they had time to look around in the shop, without feeling stressed. A male participant from Spain said:

*“I never shop for clothes in secondhand shops. In Spain we do not do this and it is a sensitive matter”.*

Some participants had a problem with buying secondhand clothes and for others it was not an issue at all. A female participant from Iran said that it is common to give clothes to friends and family but never to buy secondhand clothes, and not many secondhand shops can be found in Iran. The participant from Spain said that he buys secondhand clothes in Sweden but this was not the case with the participant from Iran. Most agreed that they buy an item when it fits and has a reasonable price. But it was said that it is easier to find movies and book in the shops than clothes that fit.

One questions asked by the moderators was if the participants *like/dislike* the secondhand shops. This brought up the hygiene matter and some said that it is a sensitive matter not knowing who used the clothes before them. For others it was enough to know that the item had been washed or they would wash it at home. The shops are not always clean and fresh and often had a distinct smell. Most agreed on that the shops need to be better organized and that their appearance matters. The clothes in the shop could be better organized after size so that not so much energy is needed from the customers when shopping for clothes. The general view among the participants is that it is difficult to find your way in the shops and that improvement is required.

Although it is common to give to family and friends some said that they also sell items on the Internet on websites like EBay and Tradera. Clothes that were bought expensive and with a good quality were sometimes sold online. Few stated that they actually took time to collect clothes they did not want anymore and donate to secondhand shops.

### 5.2.2 Purchase secondhand

When being asked if the participants knew of any secondhand shops in Uppsala the most common answer was Myrorna, located in Uppsala city center. When being asked if the view has changed regarding purchase of secondhand clothes some answered that it probably has been different during the decades. The 1970's was the beginning of the environmental era and supposedly during this decade it was trendy to buy clothes on secondhand. It was agreed that shopping for secondhand probably was not trendy during the 1980-90's. The participant from Spain said the view had not changed very much in his country and that it had never been a trend to buy secondhand clothes. With mass production it is cheaper to buy new clothes with maybe poorer quality than in the old days. The participants agreed that most consumers prefer to purchase new clothes. The view was also that before it was more common to re-use clothes, within the family from siblings or other family members. A female participant from USA said:

*“My father always bought clothes from garage sales we had in our neighborhood so as a child we did not wear much new clothes”.*

In USA it is common with selective shops, where the owners by clean clothes and organize them the same way as in a regular shop. It is a good market for teenagers and young adults

and many college students buy clothes in selective shops, low-income consumers buy their clothes there. Also for some consumers it is a necessity and an economic need. In the 1970-80's it was trendy to buy secondhand clothes in USA but today it is not a part of the general population consumption pattern.

Some stereotypes of consumers could be identified during the discussion, for example females are more likely to buy new clothes and dispose unwanted clothes more often than male consumers. Liberals, environmentally concerned consumers and young low-income consumers are more likely to purchase secondhand clothes. Retired consumers have more time on their hands to look for clothes in secondhand shops and they are probably not as sensitive to used clothes compared to the younger consumers.

### 5.2.3 Disposal of clothes

The last discussion question regarded the disposal behaviour and one participant said that she has a large IKEA-bag with unwanted clothes, only that she does not know what to do with them. Before putting bags with clothes in containers most agreed on that they either sell to shops/Internet or ask friends and family if they want the clothes. The female participant from USA said:

*“We can call people who come and pick up bags with clothes we do not want, this way we do not have to drive to containers or disposal stations”*

A female from Finland said *“I sometimes sew a new item from clothes I do not want, this way I do not have to throw the clothes”*

For some participants unwanted clothes are used as cleaning rags for floors and windows. Others give clothes to their parents and a male participant from China said *“My parents can keep the clothes in case they need extra clothes”*. In China there is an organization named Hope that collects secondhand clothes and distribute them in poor neighbourhoods.

About giving to charity it was said that if the donation places were more available they would be more likely to give to charity. Collecting the clothes and bringing it on the bus or the bike is not always practical as most shops are located in the centre. Most participants agreed on the fact that giving to charity is a good thing because it prolongs the life of the item and someone else can use it. But they were also sceptical if what you donate comes to proper use. One participant said that some clothes are kept because of sentimental values. Clothes with sentimental value were also more likely to be given to friends or family than donated to a secondhand shop. Another question concerned how the participants dispose of clothes that are whole, and most answered that they get rid of clothes once a year or when they move to another place. Most agreed that they keep clothes they do not use, it might come in handy.

It is considered good for the economy to consume and also better for the factory workers that produce the clothes. A general view in the group is that we Westerns consume more and more and do not care much about sustainability and the future. Companies encourage consumers to consume more although we do not always need what we buy. The newly manufactured clothes do not always have such a good quality, sometimes they only last to be washed a few times.

## 6 Analysis and discussion

In this chapter the empirics and theoretical ground is analyzed and discussed. It is the last part of the textile industry supply chain, the customers, which is analyzed and discussed with a focus on consumer aspects. The chapter is divided in three parts: In part 1 the purchase of clothes is analyzed, in part 2 it is the usage of clothes and part 3 concerns the disposal of clothes.

### 6.1 Purchase

The consumer decision process is complex and dynamic. As describe in the theory, consumer behavior has many definitions and interpretations. The subject is broad and covers a wide spectrum, from values to the actual purchase and the post-purchase feelings. The fashion industry is influencing the consumer behavior process with for example their fast fashion (Gardetti & Torres, 2013). With the introduction of new offerings by fashion retailers on an almost weekly basis the impulse purchase is increasing according to previous research by Bianchi & Birtwistle (2011). The value-action gap is here assumed to increase as a result of the upturn of impulse purchases that has characteristics of not-thought through purchases. The value-action gap is discussed further (6.2), as the actual purchase is a use activity in the consumer behavior model.

The attitudes of a consumer influence the purchasing behavior (Solomon, 2006). Affect, behavior and cognition are as presented in the theoretical chapter the components of the consumer attitudes toward an object. There is an increase in the overall interest for secondhand clothes, suggesting a change in the attitude amongst consumers (Ekström *et al.*, 2012). Almost 60 percent of the respondents in our study had during the last 12 months purchased secondhand clothes. The high interest among the respondents is noticed, but we cannot say how the development has evolved over time, if there has been an increase as the study by Ekström *et al.*, (2012) points to, as this study provides a snapshot.

The respondents gave different reasons for the purchasing of secondhand clothes and according to Blackwell *et al.*, (2006) attributes like price, quality and size are important to the consumers. The most common answer amongst the respondent to why they purchased secondhand clothes was the low price. This is consistent with the findings in the study by Ekström *et al.*, (2012) where they found that an important criterion in the selection of clothing is the price. Therefore, it can be argued that secondhand consumers are sensitive to changes in the price and the clothes should not be too expensive in relation to the price in a regular clothing shop in order to maintain the customers. Changes in the attributes such as price might lead to changes in consumption and the consumer can start to question why a change has occurred (Blackwell *et al.*, 2006). Our study suggests that the price level of the clothes should not fluctuate too much because of the sensitivity that many consumers feel regarding the price.

The second most common answer to why respondents purchased secondhand clothes was because it is more environmental friendly than to purchase new clothes. This points to that to be environmental friendly can be seen as something positive. If the consumer has a positive attitude towards purchasing secondhand clothes this attitude is likely to last over time, as described by Solomon (2006). The positive connection between environmental concerns and secondhand clothes could be a factor influencing the increased interest of such clothes amongst consumers as mentioned in Ekström *et al.*, (2012). Shaw & Newholm (2002) argue

that there is an increased awareness amongst consumers of how their consumption affects the environment which may have lead to more consumers reevaluating their consumption decisions. As a result of this, more consumers may select secondhand clothes over newly manufactured clothes as it is more environmental friendly.

Some respondents had a negative attitude towards purchasing secondhand clothes. According to Ekström *et al.*, (2012) the main reason to why consumers do not purchase secondhand clothes is because they find it unhygienic and our findings agree with this. The most common answer among the respondents who did not purchase secondhand clothes was that they found it unhygienic, followed by the clothes not lasting that long. In Blackwell *et al.*, (2006) attributes like quality are important when the consumer make a purchase decision. If the quality of secondhand clothes is perceived as poor this might affect the purchase decision. Even if the consumers have a positive attitude regarding the environmental impact factors such as hygiene might weigh heavier in the consumer decision process model, suggesting that factors like poor hygiene and quality of the clothes can affect the consumption in a negative way.

Different trends can influence the consumer to make a purchase or not. In the study by Ekström *et al.*, (2012) one reason to why younger consumers purchase secondhand clothes is because they can find fashionable and unique clothes in the shops. Regarding the trendiness of secondhand clothes there were more respondents who found it untrendy than trendy. If more consumers find secondhand clothes trendy, the mental responses are positive and this might lead to an increase in the number of customers. When being exposed to information about for example what is trendy the consumption can be affected. In the focus group the link between trendiness and price was discussed and an item with a more famous brand is likely to be more expensive in a secondhand shop according to the participants. The question is if the secondhand consumers search for items with famous brands or if the trendiness lies in that the clothes are bought on secondhand and thus a particular style can be created. As recognized in the study by Ekström *et al.*, (2012) our study suggests that the trendiness lies in the items found in a secondhand shop. Secondhand shops can be an alternative to mainstream clothing style and a personal style can be created.

We argued that the consumption pattern is dissimilar between consumers growing up under different conditions. Conditions we have identified are culture and time. The cultural aspects were brought to attention during the focus group discussion and it was said that secondhand clothes in some cultures are seen as an option for only the poor in the society. Participants from Spain and Iran said that it is a sensitive matter to purchase secondhand clothes because it is seen as you cannot afford to purchase new clothes in regular shops. This finding is also mentioned in the study by Ekström *et al.*, (2012) where consumers do not purchase secondhand clothes as it is perceived as an option for consumers with less money. Time aspects can for example be that the older generation in Sweden is more sparing than the younger generation (Ungerth, 2011). The older generation was brought up in a time with scarce resources where it was important to save (Ekström *et al.*, 2012). In our study it is noticed that older consumers tend to purchase clothes less often than younger consumers, it has also been identified that older consumers tend to sort more waste items than younger consumers. Our study implies that older consumers are more sparing than younger consumers, as also suggested by Ungerth (2011). Older consumers are therefore more environmental friendly than younger consumers.

When comparing the consumption patterns regarding secondhand clothes purchase and looking at different ethnic backgrounds of the respondents there was a difference. A higher percentage of respondents with a Swedish ethnicity purchased secondhand clothes than participants with a foreign background. Important to keep in mind is that out of the total of 170 respondents 114 had a Swedish ethnicity, so the differences in secondhand clothes consumption connected to ethnicity might not be representative. In this study it difficult to draw a general conclusion regarding the difference in the consumption patterns of consumers with different ethnic backgrounds from the questionnaire. However, that the focus group consisted of participants with different ethnic backgrounds contributed as a supplement regarding the cultural perspective.

### *The secondhand shop*

The way a secondhand shop is organized seems to impact the consumers and their purchase behavior according to our findings. During the focus group discussion secondhand shops and the way they were perceived by the participants was discussed. Many participants expressed complaints regarding the organization in secondhand shops. There could for example be confusion when entering a shop as the clothes were not often sorted after size or color. According to Blackwell *et al.*, (2006) too many items in a shop can be confusing for the consumers. This confusion seemed to have a negative impact on the consumer when looking for potential clothes to purchase according to the participants discussion. If a consumer has a need for a specific item the consumer will most likely not look for this item in a secondhand shop according to the participants in the focus group. The participants said that the disorganization in the shops and difficulties in finding the right size and color can result in that they do not shop there. The participants did not think the extra effort in finding suitable, good quality clothes in secondhand shops was worth the extra energy they had to sacrifice. Based on this a suggestion can be that the secondhand shops have to be better organized in order to make the purchase decisions process easier for the consumers and attract more customers. However, the study by Ekström *et al.*, (2012) states that secondhand shops have become more organized as they are not as messy as before. If the organization in a secondhand shop is improved the consumers may perceive the shop in a more positive way and by extension be more likely to visit and purchase items. If previous experiences have been negative the consumer is not likely to re-visit a shop or make another purchase. That the clothes were found to be unhygienic is also a factor identified by Ekström *et al.*, (2012) as to why consumers do not purchase secondhand clothes. Bad smell and unclean shops was brought up by the participants as limiting factors regarding the consumption of secondhand clothes and these factors can enhance the bad experience.

Focus group participants stated that it is difficult to decide on beforehand what to purchase when entering a secondhand shop. A reason for this is that a consumer can never tell what kind of clothing supply the shop offers. Since there is often only one item of each design it is difficult to tell on beforehand if the right design and size can be found. The secondhand shops may not be well organized after for example size or color. This can be connected to what was said in the focus group, that in order to find a unique item you have to search in the shop and put some effort in finding this item. Sometimes there are a few unique items and a consumer may frequently have to visit the shops to see if items of this kind can be found. From the participants discussion it can be concluded that consumers do not have the same expectations when looking for clothes in a secondhand shops as in a regular shop. As a participant highlighted during the discussion a consumer often need more time in a secondhand shop than in regular clothing shop to look through the offerings.

## 6.2 Use and consumption

Consumers attitudes and the way consumers act is not always consistent with one and other according to Ekström *et al.*, (2012). The same study has identified a value-action gap, a gap between attitude and the actual behavior of the consumer. In our study a value action gap has also been identified. The participants all agreed that environmental concerns are important but still they do not always act in the most environmental friendly way for different reasons. This shows that consumers do not act consistent with their attitudes when it comes to the use activities of consumption. Fast fashion can have affected the decision process of the consumer to some extent. With limited time offerings of fast fashion clothes consumers might feel pressure to make an impulse purchase. Previous studies claim that the environmental concern has led to consumers considering and reevaluate their consumer choices to a greater extent (Shaw & Newholm, 2002). It does not however say how the consumers act after the consideration and reevaluation. In our study we found that even if a consumer is aware of the environmental impacts of a choice it is not always this choice that is acted out. Decisions are made by consumers that are not coherent with the attitudes towards the environment.

Most of the respondents who had purchased secondhand clothes were satisfied with their purchase, which can be seen as an indicator of some level of customer satisfaction. This high number of satisfied consumers is important because these consumers are more likely to make future purchases when being satisfied. The evaluation is stored in memory and useful when making future decisions and it is in the *post-consumption evaluation* stage that the consumer feels satisfied or dissatisfied according to Blackwell *et al.*, (2006). The most common mental responses of respondents after purchasing secondhand clothes were that they felt satisfied with the purchase. The main reasons for the satisfied feeling were the perceived value for money, finding unique clothes and that the clothes met the expectations. As a previous study concludes do younger consumer groups purchase secondhand clothes because they can find fashionable and unique clothes (Ekström *et al.*, 2012). In our study the results is consistent with this previous study results. The main reason why respondents were dissatisfied with their secondhand purchase was because it had been an impulse purchase. When making impulse purchases the steps in the decision making process might be hasted. Impulse purchases of secondhand clothes can be more common due to the low price, and consumers can have the incentive to speed up the decision making process. According to Blackwell *et al.*, (2006) price can influence the decision moment in the shop and just as Ekström *et al.*, (2012) states the price is an important reason to why consumers purchase secondhand clothes.

### *Gender, age and income*

According to Pentecost & Andrews (2010) there is a difference in how often males and females shop for clothes in that females shop more frequently than males. In our study the same result has been identified, female respondents shop for clothes more often than male respondents. Pentecost & Andrews (2010) study also claim that males are more likely to spend more money when they go shopping than females, in our study no such information was collected. Additionally in our study we have connected the purchase frequency to the age of the respondents. It has been calculated that the average age is lower amongst respondents purchasing secondhand clothes than respondents who did not purchase secondhand clothes. The age analysis in this study can also conclude that the average age of the respondents increase with the decline of purchase frequency, younger consumers purchase clothes more often than older consumers. There was one exception however, the second most common answer was to purchase new clothes monthly, and the highest average age was found here. Our findings reveal that younger consumers purchase new clothes more often than older and it is the younger consumers in their early twenties that purchase new clothes on a weekly basis,

and this is also suggested in the study by Pentecost & Andrews (2010). One explanation to why young consumers purchase new clothes more frequently can be that these consumers want to keep up with the latest trends and are more sensitive to brand exposure. As Ekström *et al.*, (2012) states younger consumers are more sensitive to fashion trends than older consumers. According to Miller (2005) is clothing a way to present oneself and in the study by O’Cass & Julian (2001) were age and gender factors identified as significant contributors in fashion clothing of individuals.

The theory states that consumption preferences change with income (Solomon, 2006). In this study we have not recognized and followed the change in consumption preference for consumers, only a snapshot of individual consumers was captured in the questionnaire. The low price of the clothes was a main reason to why respondents purchased secondhand clothes as also concluded by Ekström *et al.*, (2012), however there is no connection between a low income level and purchasing of secondhand clothes. This study reveals that it is not only low-income consumers or students that purchase secondhand clothes. This finding can dismantle any prejudices about who the secondhand consumers are. When looking at the different income levels it can be noticed that in each income level except one (20 000- 25 000 SEK) more than 50 percent of the respondents purchased secondhand clothes than respondents not purchasing. From this finding it can be noticed that the income level does not matter much regarding if the consumer purchase secondhand clothes or not.

### 6.3 Disposal

The waste hierarchy states that reuse is the second most desirable way to act in order to be environmental friendly (2008/98/EC). From the answers in the questionnaire it can be noticed that all forms of reuse; formal, semi-formal and informal, is represented amongst the respondents. All these forms of reuse were also represented amongst the participants in the focus group. When consumers dispose of clothes in the household waste the bottom of the waste hierarchy is represented (2008/98/EC). The clothes will then be used for either energy or landfill which is the least favorable option from an environmental perspective. To dispose of clothes in the household waste was also something represented by both respondents and participants. Respondents and participants did however engage more frequently in better options of the waste hierarchy.

There were a difference in the ways of disposal between whole and fully useable clothes and worn out clothes amongst the respondents. There were also differences in how often respondents got rid of clothes depending on if the clothes were worn out or not. In figure 12 the frequency of disposal of whole and usable clothes are compared with the disposal of worn out clothes.

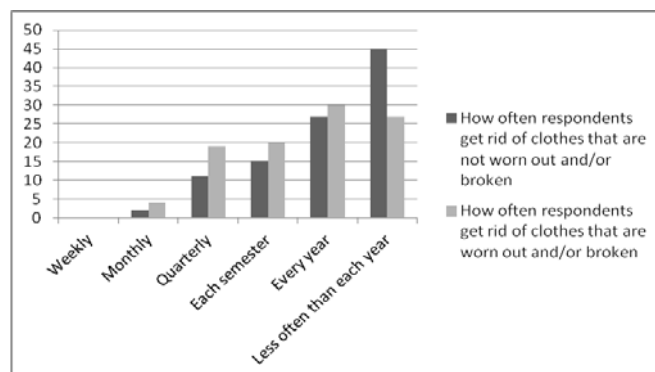


Figure 12 Difference in disposal between whole and worn out clothes

As seen in figure 12, clothes that are worn out or broken were disposed of more frequently than clothes that are whole and fully usable. This is consistent with what could be expected. Clothes that are whole and fully usable can still be used by the consumer and the incentive to dispose of those clothes is not as high as for worn out clothes. For females it was most common to dispose of worn out unwanted clothes more seldom than each year, and for males it was to dispose of such clothes each year or each semester that was the most common answer. The least common answer was the same for males and females, to dispose of such clothes each month. What the difference depends on between males and females cannot be concluded here, more information would be needed in order to make any statements.

The second most common answer regarding disposal of unwanted worn out clothes was reuse as rags for cleaning, reported by over one fourth of the respondents. This can be seen as a form of recycling, which is the step after reuse in the waste hierarchy and the second best option as described in the EU-directive (2008). It is viewed as a form of recycling since the textiles are used in new ways, for example as cleaning supplies. The participants also stated that they used worn out clothes for cleaning. To use clothes for cleaning is positive because the lifetime of the clothes is prolonged. Palm (2011) explains that the prolonging of textiles creates environmental benefits.

Another aspect of the disposal behavior is the throwaway attitude towards items such as clothes. Consumers has gone from a more careful and sparing approach toward a more excessive consumption (Ungerth, 2011). The changed consumer behavior can have been influenced by fast fashion. Because of the bad quality of fast fashion, the clothes get worn out faster than better quality clothes. A previous study by Joung & Park-Poaps (2011) shows that consumers perceive clothes to have a shorter lifetime than before. In the focus group the participants thought that companies are trying to encourage consumers to consume more and more and agree that some newly manufactured clothes can have a bad quality. As Bianchi & Birtwistle (2011) states consumers are encouraged to visit shops frequently as short time offerings are presented. It can be argued that fast fashion clothes are more likely to be worn out and thrown in the household waste, the clothes do not reach the secondhand shops to the same extent as better quality clothes. Thus, fast fashion is a less desirable option from a sustainability point of view.

As stated in the theory, there are different variables shaping the consumer decision process such as values, attitudes and culture, income and social class (Blackwell *et al.*, 2006). The difference in frequency and way of disposal of whole and fully usable clothes versus disposal of worn out clothes can be linked with a previous study and its findings by Albinsson & Perera (2009). In their study it has been concluded that the person, item- and community characteristics play a role in the voluntary disposal behavior. Especially the item- and community characteristics have greater influence on the disposal behavior. In our study results has been found consistent with these findings. In the focus group some participants highlighted the problem concerning accessibility to secondhand shops and other places to dispose of unwanted clothes. Participants discussed that the location of the drop of sites was not always in the most central parts of a city and it could be an inconvenience to visit the drop of sites. The participants also talked about the logistics to take unwanted clothes with them. To bring a big bag of clothes on a bike or the bus was not always convenient. These problems can be related to the characteristics of the community as described in Albinsson & Perera (2009). Thus, it is also important to have the submission centers at a convenient location for the consumers. If the access is easy it could make more consumers perform formal reuse. Most participants agreed that it is good to donate clothes to charity, so that the lifetime of the



clothes is prolonged, even though some participants were skeptical to if the clothes would come to proper use. This can be seen as an indicator that more information is needed for the consumers. Consumers need to know what is going to happen to their clothes, to be sure that what they donate will come to good use. Regarding the items characteristics explained in Albinsson & Perera (2009) some participants agreed that if the clothes had some kind of symbolic or economic value they were reluctant to throw it away or donate it to charity. When clothes had a high value the participants said they would rather give it to friends and family members than charity or secondhand shops. In our study a connection was found between item characteristic and the way consumer dispose of clothes, consistent with the study by Albinsson & Perera (2009). Concerning the person characteristic as described by Albinsson & Perera (2009), the voluntary disposal behavior was difficult to connect to the individual participant in the focus group since no such detailed information was collected. However, from an overall perspective the participants in the focus group agreed that consumers today are more concerned about environmental issues. Therefore consumers are more engaged in recycling and dispose of clothes in a more environmental friendly way. Regarding recycling does the study by Bianchi & Birtwistle (2011) show that if a consumer recycle items such as paper and plastic they are more likely to recycle clothes. On average did a respondent sort and recycle 6,4 items out of the 11 options. The item least recycled by respondents was clothes and one reason to why clothes were the item least recycled can be that there is no particular bin for clothes as it is for plastic and paper. Why females sorted more items than males and why younger respondents tended to sort fewer items than older respondents cannot be concluded here. Gender aspects are not in focus in this study but the difference between females and males willingness to sort and recycle has been evident.

In the study by Ekström *et al.*, (2012) do the authors conclude that information is needed regarding different actions a consumer can take to act more environmental friendly as oppose to information about the environmental impact of the clothing consumption, in order to decrease the value-action gap. Our study supports the notion of making it easy and practical to dispose of garments in an environmental friendly way, in order to decrease the value-action gap. It can for example be made easier for the consumers to donate clothes in order to decrease the amount of clothes that end up in the household waste. As a participant from USA explained, with curbside collection they did not have to go to a disposal site in order to donate clothes. Different organizations in Sweden such as Myrorna, offers to pick up items at a consumers home, the consumer can also visit a shop to drop off items (Internet, Myrorna, 2013). That the clothes will end up with a secondhand shop or a charity instead of in the household waste is better from an environmental point of view, instead of being incinerated the clothes will be reused. The study by Ungerth (2011) concludes that Swedish consumers have a positive attitude toward a regulated collection system for textiles. Our study supports the idea of a more regulated collection system that can make it easier for the consumers to dispose of clothes in a more environmental friendly way. As our study indicates, one of the main reasons to why consumers throw clothes in the household waste is because it was the easiest way to dispose of the clothes. With a more regulated collection system the value-action gap may decrease. In the study by Ungerth (2011) it was also concluded that almost one third of the consumers preferred a form of refund system. In our study only 15 percent thought that a reward would make them throw fewer clothes in the household waste. Why not more respondents liked the idea of a reward could be that the clothes thrown in the household waste is likely to be stained or worn out and consumers might not think anybody would want clothes in that condition. We therefore do not think that such a system would decrease the amount of textile ending up in the household waste.

The most common way to dispose of unwanted whole and fully usable clothes was formal reuse and the most common answer from the participants to why they donated clothes to charities was that they wanted to help less fortunate people in the society. Close to one third of the respondents donated clothes to charity and almost one fifth of the respondents donated to secondhand shops which means that over half of the respondents performed formal reuse for such clothes. Formal reuse was the third most common answer regarding disposal of unwanted worn out clothes and to donate clothes to charity was represented by one fourth of the respondents. According to Ekström *et al.*, (2012) consumers perceive donations to be an easy way to dispose of unwanted clothes. To dispose of unwanted clothes by donating it to charity can be connected to the consumer behavior model and the consumer responses described by Kardes *et al.*, (2011). The emotional responses of donating clothes to charity is according to participants that they feel better knowing that the clothes can come to use for somebody else and that the lifetime of the clothes will be prolonged. The respondents answers can be seen as a further confirmation that a main reason to why consumers donate clothes to charity is to feel better about themselves. From the participants and respondents answers it is noticed that donating clothes creates a positive feeling, and this is supported by previous research results. In Ekström *et al.*, (2012) a major reason to why consumers donate clothes to charity was to feel better about themselves. Since attitudes tends to last over time according to Solomon (2006) we assume that the donating behavior is likely be repeated.

Worn out clothes was the most common answer to why respondents threw clothes away in the household waste and many respondents also reported that it was the easiest way to dispose of the clothes. Respondents said that if the distance to submission centers was shorter they would be more willing to dispose of the clothes there instead of throwing it in the household waste. Participants also reported that the remote location of submission centers was a reason to why they did not turn in more of their unwanted clothes. Participants also said that to have better knowledge about where to submit the clothes would make them more inclined to turn the clothes in there. Also the assurance that the clothes would be recycled or end up with charity would make respondents throw lesser clothes in the household waste. The participants also mentioned their skepticism toward that the clothes would come to proper use when being donated. From our findings we argue that there is a need to inform consumers about how and where to dispose of clothes in an environmental friendly way. Information regarding different actions consumers can take was also a finding in the study by Ekström *et al.*, (2012). Such information may decrease the amount of clothes that end up in the household waste.

The three parts of this chapter are important and needs to be recognized as they are interconnected and impact the environment in different ways. What a consumer purchase effects the disposal behavior as well as the use and consumption behavior. To see the big picture and the relationship between these parts can help in the development of a future established system where clothes are taken care of in the best environmental friendly way possible.

## 7 Conclusions

This thesis was conducted in order to better understand consumer behaviour and attitudes regarding secondhand clothes. This thesis also contributes to an overall understanding of the last part of the textile supply chain, thus providing a deeper insight to the textile industry sustainability problem. The increased textile waste is an environmental problem and there is a need to investigate the disposal behavior of the consumers as well as the purchase behavior, as these two parts are correlated to each other. The questions of particular interest that we set out to answer were:

- ✓ *Why do consumers purchase secondhand clothes? (or not to do so)*
- ✓ *Why do consumers donate clothes to secondhand shops? (or not to do so)*
- ✓ *In what different ways do consumers dispose of unwanted clothes?*

From our study no general conclusion can be drawn regarding consumer attitudes and behavior in a large scale, this study is geographically limited to Uppsala. What our study contributes with is the consumer behavior and attitudes in a large city setting where different consumer segments can be found.

### 7.1 Why do consumers purchase secondhand clothes?

Consumers purchase secondhand clothes because 1) It is price worthy 2) Reduce the environmental impact 3) Unique items can be found in a secondhand shop. Most secondhand consumers were satisfied with their purchase because it was price worthy and corresponded to the expectations. Consumers do not purchase secondhand clothes because 1) It is unhygienic 2) The clothes are not as durable as newly manufactured clothes.

A condition that influences the purchasing behavior is the organization of the shop and although the organization of the secondhand shops have improved according to Ekström *et al.*, (2012) it can become even better. In order to keep current customers and attract new ones it is important that the shop has a well thought through structure so that the customers easily can find clothes they are searching for. By having a well-organized shop, for example that the clothes are sorted after color, size or category, the consumers can have a positive experience. It is difficult to influence the behavior of the consumers who do not purchase secondhand clothes because they find it unhygienic. The fact that attitudes tends to last over time supports the assumption that consumers who find secondhand clothes unhygienic are not likely to purchase secondhand clothes in the future since they did not have this purchase behavior in the past.

Although it is not considered to be trendy to purchase secondhand clothes, as the study by Ekström *et al.*, (2012) also identifies can unique items be found in the shops. This suggests that some level of trendiness in creating a unique and own style exists. The majority of the respondents and participants purchased secondhand clothes and this is positive from an environmental point of view as the lifetime of the clothes is prolonged when being reused.

### 7.2 Why do consumers donate clothes to secondhand shops?

Our study identified that the main reasons to why consumers donate clothes to second hand shops are 1) Help the less fortunate 2) Reduce the environmental impact 3) The easiest way to dispose of unwanted clothes. The number of respondents answering the different reasons mentioned above did not differ considerable much, thus the difference between the numbers of respondents answering 1) was not far from the number of respondents answering 2) or 3).

Another reason behind the donating behavior is that when donating clothes the lifetime of the clothes is prolonged and the environmental impact is reduced, this creates a positive attitude amongst the consumers that donate and they are likely to continue that behavior. Why consumers do not donate to charity and instead throw the clothes in the household waste is because 1) The clothes were worn out 2) It was the easiest way to dispose of the clothes 3) The clothes were stained or soiled. It is also concluded that the location of a drop of site for donations was a major reason to why consumer did not donate clothes to charity. A well functioning system has to be established in order to make it more convenient for consumers to donate clothes so that the amount of textiles ending up in the household waste decreases. According to the study by Ungerth (2011) Swedish consumers have a positive attitude toward a more regulated collection system of clothes, thus an implementation of such a system would most likely be well received by consumers.

### 7.3 Disposal of unwanted clothes

In our study there is a difference in the disposal behavior depending on the items characteristics just as described by Albinsson & Perera (2009). Clothes with a higher value are more likely to be given to friends or family over charity shops. The difference in disposal behavior also depends on if the clothes are whole and fully useable or if they are worn out and this regards both the disposal frequency and the different ways of disposal. Similar to the findings in the study by Ekstöm *et al.*, (2012) our study has identified that the condition of the clothes affects the disposal behavior. Worn out clothes are disposed of more frequently than clothes that are whole and fully usable. In this study it was found that consumers are more likely to donate clothes that are whole and fully usable than clothes that are worn out which most likely will end up in the household waste. For the environment it is better to donate clothes so that the lifetime is prolonged than to throw it in the household waste where it will become incinerated. It is therefore better from an environmental perspective that consumers decide to purchase better quality clothes over fast fashion clothes as they have a longer lifetime.

As concluded in the section above it needs to become more convenient for consumers who want to donate clothes. Our finding are that if the availability is poor this can cause a value-action gap, even if the consumer has good intentions and is concerned about the environment the easiest option is more likely to be selected. Consumers need to be better informed about different environmental disposal activities, also concluded by Ekström *et al.*, (2012). Information about what happens with the donated clothes is also needed so that the trust in charities becomes stronger.

### 7.4 Further research suggestions

A suggestion for further research is to conduct a study with a larger sample, where a more even distribution is desirable regarding background factors such as age, gender and cultural heritage. To be able to go more in depth concerning what the differences in mentioned factors are would also contribute to a better understanding in the field. Our study does not include suggestions on how information regarding different consumer actions can be communicated as this requires further research, but suggestions of this kind would be a useful contribution.

Further research is also needed in order to develop disposal policies so that the textile waste decreases, preferably in every larger municipality. There is awareness and willingness amongst the consumers according to our findings to decrease the textile waste and further research can contribute in creating a better system than the current one regarding the disposal of clothes.

# Bibliography

## Literature and publications

2008/98/EC (2008) DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives.

Adrangi, B.K., Dhanda, K.K., & Hill, R.P. (2004). A Model of Consumption and Environmental Degradation: making the case for sustainable consumer behavior. *Journal of Human Development*, Vol. 5, No. 3, pp. 417-432.

Albinsson, P. A., & Perera, B. Y. (2009). From trash to treasure and beyond: the meaning of voluntary disposition. *Journal of Consumer Behaviour*, Vol. 8, pp. 340-353.

Allwood, J.M., Laursen, S.E., Malvido de Rodríguez, C., & Bocken, N.M.P. (2006). *Well dressed? The present and future sustainability of clothing and textiles in the United Kingdom*. University of Cambridge Institute for Manufacturing, UK.

Auger, P., & Devinney, T.M. (2007). Do what consumers say matter? The misalignment of preferences with unconstrained ethical intentions. *Journal of Business Ethics*, Vol. 76, No. 4, pp. 361-383.

Bianchi, C., & Birtwistle, G. (2011). Consumer clothing disposal behaviour: a comparative study. *International Journal of Consumer Studies* ISSN 1470-6423.

Birtwistle, G., & Moore, C. M. (2007). Fashion clothing – where does it all end up. *International Journal of Retail & Distribution Management*, Vol. 35, No. 3, pp. 210-216.

Blackwell, Roger. D., Miniard, Paul. W & Engel, James. F. (2006). *Consumer Behavior*. South Western, Mason, OH, 10<sup>th</sup> edition.

Bloor, M., Frankland, J., Thomas, M., & Robson, K. (2001). *Focus groups in social research*. SAGE Publications Ltd, London.

Bryman, A. 2012. *Social research methods*. Oxford university press Inc, New York. 4<sup>th</sup> edition.

Bryman, A. 2008. *Social research methods*. Oxford university press Inc, New York. 3<sup>rd</sup> edition.

Carlsson, A., Hemström, K., Edborg, P., Stenmarck, Å. & Sörme, L. (2011). *Kartläggning av mängder och flöden av textilavfall*. SMED på uppdrag av Naturvårdsverket.

Carrigan, M., & Attalla, A. (2001). The myth of the ethical consumer - do ethics matter in purchase behaviour? *Journal of Consumer Marketing*, Vol. 18 Iss: 7 pp. 560-578.

De Pelsmacker, P., Driesen, L., & Rayp, G. (2005). Do Consumers Care about Ethics? Willingness to Pay for Fair-Trade Coffee. *The Journal of Consumer Affairs*, 39(2): 363-385.

Ekström, K.M., Gustafsson, E., Hjelmgren, D., & Salomonson, N. (2012). Mot en mer hållbar konsumtion – En studie om konsumenters anskaffning och avyttring av kläder. *Vetenskap för profession*. Rapport nr 20:2010.

Fink, A. 2009. *How conduct surveys- A step-by step guide*. SAGE publications Inc, Los Angeles. 4<sup>th</sup> edition.

Fisher, T., Cooper, T., Woodward, S., Hiller, A., & Goworek, H. (2008). Public Understanding of Sustainable Clothing: A report to the Department for Environment. *Food and Rural Affairs*, Defra, London.

Gardetti, M.A., & Torres, L.A. (2013). *Sustainability in fashion and textiles: Values, design, production and consumption*. Greenleaf publishing limited, UK.

Hopwood, B., Mellor, M., & O'Brien, G. (2005). Sustainable development, mapping different approaches. *Sustainable cities research institute*, Vol. 13, pp. 38-52.

Jacoby, J., Berning, C. K., & Dietvorst, T. F. (1977). What About Disposition – What do consumers do with products once they have outlived their usefulness, and how does this relate to the purchase of replacement products? *Journal of Marketing*, April, Vol 44, No. 2, pp. 22-28.

Joung, H-M., & Park-Poaps, H. (2011). Factors motivating and influencing clothing disposal behaviours. *International Journal of Consumer Studies* ISSN 1470-6423.

Kardes, Cline & Cronley, Consumer Behavior: Science and Practice. Soutwestern, Cengage Learning, 2011. (ISBN-13: 9780538746861, ISBN-10: 0538746866).

Liljebäck, L-E. (2012). *Billigare kläder, dyrt för miljön*. Naturvetare, Nr. 6, pp. 12-17.

McDonald, S., Oates, C.J., & Alevizou, P.J. (2012). Individual strategies for sustainable consumption. *Journal of Marketing Management*, 28:3-4, pp.445-468.

Miller, J.I. (2005). Fashion and democratic relationships. *Northeasters Political Society Association*, Vol. 37, No. 1, pp. 3-23.

Morgan, L. R., & Birtwistle, G. (2009). An investigation of young fashion consumers' disposal habits. *International Journal of Consumer Studies*, 33(2), pp. 190-198.

Niinimäki, K. (2010). Eco-clothing, Consumer Identity and Ideology. *Sustainable Development*, Vol. 18, pp. 150-162.

Noble, S.M., & Schewe, C.D. (2003). Cohort segmentation: An exploration of its validity. *Journal of Business Research*, Vol. 56, pp. 979-987.

Nordås, H.K. (2004). The global textile and clothing industry post the agreement on textiles and clothing. *WTO publications*, (ISSN 1726-9466, ISBN 92-870-1244-X), Geneva.

O'Cass, A., & Julian, C.C. (2001). Fashion clothing consumption: studying the effects of materialistic values, self-image/product-image congruency relationships, gender and age on

fashion clothing involvement. *Proceedings of the Australian and New Zealand Marketing Academy (ANZMAC) Conference*, Auckland, New Zealand, 1-5 December, Massey University Press, Auckland, New Zealand.

Palm, D. (2011). *Improved waste management of textiles*, Project 9 Environmentally improved recycling, IVL Swedish Environmental Research Institute Ltd., Gothenburg, Sweden.

Pentecost, R., & Andrews, L. (2010). Fashion retailing and the bottom line: The effects of generational cohorts, gender, fashion fanship, attitudes and impulse buying on fashion expenditure. *Journal of Retailing and Consumer Services* 17 (2010) 43–52.

Peter, Paul. J., & Olson, Jerry. C. (2010). *Consumer Behavior & Marketing Strategy*. McGraw-Hill international edition, 9<sup>th</sup> edition.

Robson, C. 2011. *Real world research*. John Wiley and Sons, Ltd, United Kingdom. 3<sup>rd</sup> edition.

Robson, C. 2002. *Real world research: a resource for social scientists and practitioner - researchers*. Oxford, Blackwell Publishers.

Shaw, D., & Newholm, T. (2002). Voluntary Simplicity and the Ethics of Consumption. *Psychology & Marketing* 2002 John Wiley & Sons, Inc. Vol. 19(2):167–185 (February 2002).

Silverman, David. (2010). *Doing qualitative research*. SAGE Publications Ltd, London, third edition.

Solomon, Michael. R. (2006). *Consumer Behaviour - Buying, Having, and Being*. Pearson Education, Inc., Upper Saddle River, New Jersey, 7<sup>th</sup> edition.

Szmigin, I., Carrigan, M., & McEachern, M. (2009). The conscious consumer: taking a flexible approach to ethical behaviour. *International Journal of Consumer Studies*, 33 (2). pp. 224-231.

Tojo, N., Kogg, B., Kiørboe, N., Kjær, B., & Aalto, K. (2012). Prevention of Textile Waste Material flows of textiles in three Nordic countries and suggestions on policy instruments. *TemaNord* 2012:545.

Ungerth, Louise. (2011). *Påklädd eller avklädd? En kort översikt om våra kläder*. Rapport 2011. Konsumentföreningen Stockholm.

## Internet

BergFashionLibrary, <http://www.bergfashionlibrary.com>  
*Secondhand clothing*, 2012-10-04  
<http://www.bergfashionlibrary.com/staticfiles/Encyclopedia/Secondhand-Clothing-Global-Fashion.pdf>

Future Fabrics Expo, <http://www.thesustainableangle.org/futurefabricsexpo/Home.aspx>  
*Future of fashion fabrics*, 2013-01-29

<http://www.thesustainableangle.org/futurefabricsexpo/FutureFabricsExpo/FutureFashionFabrics.aspx>

IVL Svenska Miljöinstitutet, <http://www.ivl.se>  
*Begagnathandelns klimatnytta*, 2013-05-12  
[http://www.ivl.se/download/18.3d71f8313d6a4ffc7931b6/1368175862479/130510\\_Bag.handel\\_klimatnytta\\_rapport.pdf](http://www.ivl.se/download/18.3d71f8313d6a4ffc7931b6/1368175862479/130510_Bag.handel_klimatnytta_rapport.pdf)

Kantar World Panel, <http://www.kantarworldpanel.com>  
*A review of consumer trends*, 2013-01-29  
<http://www.kantarworldpanel.com/vn/news/press-release-apr>

Myrorna, <http://myrorna.se>  
*Vilka är Myrorna?* 2013-05-02

NRDC (Natural Resources Defense Council), <http://www.nrdc.org>  
*Clean by design*, 2013-01-29  
<http://www.nrdc.org/international/cleanbydesign>

Research Methods, <http://www.socialresearchmethods.net>  
*Unit of Analysis*, 2013-03-28  
<http://www.socialresearchmethods.net/kb/unitanal.php>

SEPA (Scottish Environment Protection Agency), <http://www.sepa.org.uk>  
*The waste hierarchy*, 2012-10-19  
[http://www.sepa.org.uk/waste/moving\\_towards\\_zero\\_waste/waste\\_hierarchy.aspx](http://www.sepa.org.uk/waste/moving_towards_zero_waste/waste_hierarchy.aspx)

UK (Uppsala kommun), [www.uppsala.se](http://www.uppsala.se)  
*Kommunfakta*, 2012-09-09  
<http://www.uppsala.se/sv/Kommunpolitik/Kommunfakta>

UN (United Nations), <http://www.un.org>  
*Our Common Future*, 2013-01-29  
<http://www.un-documents.net/ocf-02.htm>



# Appendix 1- The questionnaire

Hej!

Detta är en enkät som handlar om klädkonsumtion, om konsumenters attityder och beteende till second-hand kläder. Materialet kommer användas som en del av en masteruppsats som skrivs av två studenter vid SLU i Uppsala.

Enkäten beräknas ta 5-10 minuter att fylla i och ni kommer givetvis att vara anonym. Om något är oklart är det bara att fråga oss här och nu. Om du i efterhand undrar något om studien finns våra kontaktuppgifter på det papper du får med dig som bekräftelse på att du deltagit i studien.

Tack för att ni tar er tid!

Jenny Jönsson & Tina Wätthammar  
Sveriges lantbruksuniversitet (SLU), Uppsala

## -- Källsortering --

**Fråga 1:** Vad källsorteras i ditt hushåll? Du får markera flera alternativ.

- ☐ 0<sub>1</sub> Ingenting
- ☐ 0<sub>2</sub> Matavfall
- ☐ 0<sub>3</sub> Tidningar
- ☐ 0<sub>4</sub> Kartonger
- ☐ 0<sub>5</sub> Plast
- ☐ 0<sub>6</sub> Metall
- ☐ 0<sub>7</sub> Glas
- ☐ 0<sub>8</sub> Kläder
- ☐ 0<sub>9</sub> Batterier
- ☐ 0<sub>10</sub> Elektronik
- ☐ 0<sub>11</sub> Annat.....

## -- Köpa och slänga kläder --

**Fråga 2:** Hur ofta köper du nya kläder (undantaget strumpor och underkläder)?

- ☐ 0<sub>1</sub> Varje vecka
- ☐ 0<sub>2</sub> Varje månad
- ☐ 0<sub>3</sub> Varje kvartal
- ☐ 0<sub>4</sub> Varje halvår
- ☐ 0<sub>5</sub> Varje år
- ☐ 0<sub>6</sub> Mer sällan än så

**Fråga 3:** Hur ofta gör du dig av med kläder som är utslitna och/eller trasiga (undantaget strumpor och underkläder)?

- ☐ 0<sub>1</sub> Varje vecka
- ☐ 0<sub>2</sub> Varje månad
- ☐ 0<sub>3</sub> Varje kvartal
- ☐ 0<sub>4</sub> Varje halvår
- ☐ 0<sub>5</sub> Varje år
- ☐ 0<sub>6</sub> Mer sällan än så

**Fråga 4:** Vad gör du med kläder som är utslitna och/eller trasiga? Du får markera flera alternativ.

- ☐ Slänger i hushållssoporna
- ☐ Lämnar till välgörenhet
- ☐ Slänger i brännbart på miljöstationen
- ☐ Använder som trasor (t.ex. städning, bilvård)
- ☐ Annat .....

**Fråga 5:** Hur ofta gör du dig av med kläder (undantaget strumpor och underkläder) som inte är utslitna och/eller trasiga?

- ☐ Varje vecka
- ☐ Varje månad
- ☐ Varje kvartal
- ☐ Varje halvår
- ☐ Varje år
- ☐ Mer sällan än så

**Fråga 6:** Hur gör du dig av med kläder (undantaget strumpor och underkläder) som inte är utslitna och/eller trasiga? Du får markera flera alternativ.

- ☐ Lämnar in till välgörenhet
- ☐ Lämnar in till secondhand för försäljning
- ☐ Säljer själv på Internet
- ☐ Säljer själv på annat sätt
- ☐ Skänker till familj och vänner
- ☐ Slänger i soporna
- ☐ Jag sparar alla mina kläder
- ☐ Annat .....

**Fråga 7:** Den här frågan besvaras bara av dig som skänker kläder till välgörenhet. Markera det alternativ som stämmer för varje påstående.

Jag skänker kläder till välgörenhet för att..	Ja	Nej	Ingen uppfattning
A... jag vill minska miljöpåverkan	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
B... jag vill hjälpa behövande	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
C... andra kanske tycker att plaggen är snygga	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
D... det är ett lätt sätt att göra sig av med onödigt överskott	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
E... det är trendigt	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>

**Fråga 8:** Har du under de senaste 12 månaderna kastat kläder i hushållssopor (undantaget strumpor och underkläder)?

- ☐ Ja
- ☐ Nej (Om du kryssar för "Nej", gå till fråga 11)
- ☐ Vet inte (Om du kryssar för "Vet inte", gå till fråga 11)

**Fråga 9:** Du svarade att du det senaste året kastat kläder (annat än strumpor och underkläder). Varför har du kastat kläder (annat än strumpor och underkläder)? Du får markera flera alternativ.

- ☐ De var utslitna
- ☐ De var solkiga/smutsiga
- ☐ De var nedfläckade
- ☐ De var fula, jag trodde ingen ville ha dem
- ☐ Det var enklast så
- ☐ Det var ingen som ville ta emot dem
- ☐ Annat .....

**Fråga 10:** Vad skulle få dig att inte slänga kläder (annat än strumpor och underkläder)? Du får markera flera alternativ.

- ☐ Bättre kännedom om var man kan lämna in kläder till välgörenhet
- ☐ Kortare avstånd till närmaste inlämningsstation
- ☐ Belöningar (t. ex. pant) för gamla kläder
- ☐ Bättre förvaringsmöjligheter hemma
- ☐ Visshet om att de går till välgörenhet
- ☐ Visshet om att materialet återvinns
- ☐ Annat .....

**Fråga 11:** Vilka av nedanstående användningsområden kan du tänka dig för dina kläder (annat än strumpor och underkläder) som är **hela och fullt användbara**? Markera det alternativ som stämmer för **varje** påstående.

Jag kan tänka mig att hela och fullt användbara kläder..	Ja	Nej	Ingen uppfattning
A... säljs i en secondhandbutik	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
B... hamnar hos en välgörenhetsorganisation	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
C... sys om till nya kläder	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
D... används i produktion av nya kläder	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
E... används i produktion av andra textila material, t.ex. mattor	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
F... används för produktion av etanol/biogas	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
G... används som isoleringsmaterial	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
H... används som fyllnadsmaterial i t.ex. möbler	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>

## -- Köpa secondhand --

**Fråga 12:** Har du under de senaste 12 månaderna köpt kläder på secondhand?

- ☐ Ja (Om du kryssar för "Ja", svara på fråga 13-17 och hoppa sen över fråga 18)
- ☐ Nej (Om du kryssar för "Nej", hoppa över fråga 13-17 och svara på fråga 18)
- ☐ Vet inte (Om du kryssar för "Vet inte", gå till fråga 19)

**Fråga 13:** Hur ofta köper du kläder på secondhand?

- ☐ Varje vecka
- ☐ Varje månad
- ☐ Varje kvartal
- ☐ Varje halvår
- ☐ Varje år
- ☐ Mer sällan än så

**Fråga 14:** Den här frågan besvaras av dig som har köpt kläder på secondhand. Markera det alternativ som stämmer för varje påstående.

Jag köper kläder på secondhand för att:	Ja	Nej	Ingen uppfattning
A... där kan jag köpa unika plagg	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
B... det är billigare än att köpa nyttillverkade kläder	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
C... det är skonsamt mot miljön	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
D... jag tycker inte nyttillverkade kläder är snygga	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
E... jag kan hitta billiga märkeskläder	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
F... Det är trendigt med secondhand	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>

**Fråga 15:** Hur brukar du känna dig efter att du köpt secondhand kläder?

- ☐ Nöjd
- ☐ Missnöjd

**Fråga 16:** Om du svarade **nöjd** kryssa i ett eller flera alternativ.

- ☐ Motsvarade förväntningarna
- ☐ Bra kvalité
- ☐ Prisvärt
- ☐ Unikt
- ☐ Annat

**Fråga 17:** Om du svarade **missnöjd** kryssa i ett eller flera alternativ.

- ☐ Motsvarade inte förväntningarna
- ☐ Dålig kvalité
- ☐ Ej prisvärt
- ☐ Impulsköp
- ☐ Annat

**Fråga 18:** Den här frågan besvaras av dig som inte har köpt kläder på secondhand. Markera det alternativ som stämmer för varje påstående.

Jag köper <u>inte</u> kläder på secondhand för att:	Ja	Nej	Ingen uppfattning
A... secondhandkläder håller inte lika länge	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
B... Secondhandkläder är ohygieniska	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
C... secondhandkläder är omoderna	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
D... det är pinsamt att bära secondhand	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>
E... det är pinsamt att handla i secondhandbutik	O <sub>1</sub>	O <sub>2</sub>	O <sub>3</sub>

**-- Avslutande frågor om dig --**

**Fråga 19:** Är du: ☐ Kvinna ☐ Man

**Fråga 20:** Vilket år är du född? \_\_\_\_\_

**Fråga 21:** Hur många personer ingår i ditt hushåll: \_\_\_\_\_ person(er)

**Fråga 22:** Vilken är din högsta utbildningsnivå?

- ☐ Grundskola pågående
- ☐ Grundskola fullbordad
- ☐ Gymnasium pågående
- ☐ Gymnasium fullbordad
- ☐ Eftergymnasial utbildning utanför högskolesystemet pågående
- ☐ Eftergymnasial utbildning utanför högskolesystemet fullbordad
- ☐ Högskola/universitet pågående
- ☐ Högskola/universitet fullbordad
- ☐ Vill inte svara

**Fråga 23:** Vilken är din uppväxtmiljö?

- ☐ På landet
- ☐ Småstad
- ☐ Storstad

**Fråga 24:** Vilken är din etniska tillhörighet (rötter)?

☐ \_\_\_\_\_

☐ Vill inte svara

**Fråga 25:** Vilken är din månadsinkomst efter skatt?

- ☐ 0-10 000
- ☐ 10 000-15 000
- ☐ 15 000-20 000
- ☐ 20 000-25 000
- ☐ > 25 000
- ☐ Vill inte svara

**Tack för att du tagit dig tid att fylla i vår enkät!**

## Appendix 2- The questionnaire by Ekström *et al.*, 2012

Hej,

den här enkäten handlar om **kläder, återvinning och sopor**. Vi som gjort enkäten håller på med ett större forskningsprojekt om klädåtervinning och vi vill ta reda på vad folk gör med sina avlagda kläder. Enkäten är anonym, och den tar ungefär 5-10 minuter att fylla i. Har du några frågor så finns våra kontaktuppgifter sist i enkäten.

Tack för att du tar dig tid!

Karin M Ekström, Eva Gustafsson, Daniel Hjelmgren och Nicklas Salomonson  
Högskolan i Borås

### -- Källsortering --

**Fråga 1:** Vad källsorteras i ditt hushåll? Du får markera flera alternativ.

- ☐ Ingenting
- ☐ Matavfall
- ☐ Tidningar
- ☐ Kartonger
- ☐ Plast
- ☐ Metall
- ☐ Glas
- ☐ Kläder
- ☐ Batterier
- ☐ Elektronik
- ☐ Annat.....

**Fråga 2:** Hur nära har du till närmaste miljöstation?

- ☐ Närmare än 500 meter
- ☐ Längre än 500 meter men kortare än 2 kilometer
- ☐ Längre än 2 kilometer men kortare än en halvmil
- ☐ En halvmil eller längre
- ☐ Vet inte

**Fråga 3:** Hur tycker du att miljöstationen fungerar där du bor?

- ☐ Bra
- ☐ Dåligt (utveckla gärna ditt svar i fråga 4)
- ☐ Vet inte

**Fråga 4:** Om du har svarat att miljöstationen fungerar dåligt på fråga 3, vad är det som inte fungerar?

.....  
.....

### -- Köpa och slänga kläder --

**Fråga 5:** Hur ofta köper du nya kläder (undantaget strumpor och underkläder)?

- ☐ Varje vecka
- ☐ Varje månad
- ☐ Varje kvartal

- ☐ Varje halvår
- ☐ Varje år
- ☐ Mer sällan än så

**Fråga 6:** Hur ofta gör du dig av med kläder som är utslitna och/eller trasiga (undantaget strumpor och underkläder)?

- ☐ Varje vecka
- ☐ Varje månad
- ☐ Varje kvartal
- ☐ Varje halvår
- ☐ Varje år
- ☐ Mer sällan än så

**Fråga 7:** Vad gör du med kläder som är utslitna och/eller trasiga? Du får markera flera alternativ.

- ☐ Slänger i hushållssoporna
- ☐ Lämnar till välgörenhet
- ☐ Slänger i brännbart på miljöstationen
- ☐ Använder som trasor (t.ex. städning, bilvård)
- ☐ Annat.....

**Fråga 8:** Hur ofta gör du dig av med kläder (undantaget strumpor och underkläder) som inte är utslitna och/eller trasiga?

- ☐ Varje vecka
- ☐ Varje månad
- ☐ Varje kvartal
- ☐ Varje halvår
- ☐ Varje år
- ☐ Mer sällan än så

**Fråga 9:** Hur gör du dig av med kläder (undantaget strumpor och underkläder) som inte är utslitna och/eller trasiga? Du får markera flera alternativ.

- ☐ Lämnar in till välgörenhet
- ☐ Lämnar in till secondhand för försäljning
- ☐ Säljer själv på Internet
- ☐ Säljer själv på annat sätt
- ☐ Skänker till familj och vänner
- ☐ Slänger i soporna
- ☐ Jag sparar alla mina kläder
- ☐ Annat.....

**Fråga 10:** Den här frågan besvaras bara av dig som skänker kläder till välgörenhet. Markera det alternativ som stämmer för varje påstående.

Jag skänker kläder till välgörenhet för att..	Ja	Nej	Ingen uppfattning
... jag vill minska miljöpåverkan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... jag vill hjälpa behövande	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... andra kanske tycker att plaggen är snygga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... det är ett lätt sätt att göra sig av med onödigt överskott	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... det är trendigt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Fråga 11:** Har du under de senaste 12 månaderna kastat kläder (undantaget strumpor och underkläder)?

- ☐ Ja
- ☐ Nej (Om du kryssar för "Nej", hoppa över fråga 12 och 13 och svara på fråga 14)
- ☐ Vet inte (Om du kryssar för "Vet inte", hoppa över fråga 12 och 13 och svara på fråga 14)

**Fråga 12:** Du svarade att du det senaste året kastat kläder (annat än strumpor och underkläder). Varför har du kastat kläder (annat än strumpor och underkläder)? Du får markera flera alternativ.

- ☐ De var utslitna
- ☐ De var solkiga/smutsiga
- ☐ De var nedfläckade
- ☐ De var fula, jag trodde ingen ville ha dem
- ☐ Det var enklast så
- ☐ Det var ingen som ville ta emot dem
- ☐ Annat .....

**Fråga 13:** Vad skulle få dig att inte slänga kläder (annat än strumpor och underkläder)? Du får markera flera alternativ.

- ☐ Bättre kännedom om var man kan lämna in kläder till välgörenhet
- ☐ Kortare avstånd till närmaste inlämningsstation
- ☐ Belöningar (t ex pant) för gamla kläder
- ☐ Bättre förvaringsmöjligheter hemma
- ☐ Visshet om att de går till välgörenhet
- ☐ Visshet om att materialet återvinns
- ☐ Annat .....

**Fråga 14:** Vilka av nedanstående användningsområden kan du tänka dig för kläder (annat än strumpor och underkläder) som är **hela och fullt användbara**? Markera det alternativ som stämmer för **varje** påstående.

Jag kan tänka mig att hela och fullt användbara kläder..	Ja	Nej	Ingen uppfattning
... säljs i en secondhandbutik	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... hamnar hos en välgörenhetsorganisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... sys om till nya kläder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... används i produktion av nya kläder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... används i produktion av andra textila material, t.ex. ... mattor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... används för produktion av etanol/biogas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... används som isoleringsmaterial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... används som fyllnadsmaterial i t.ex. möbler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### -- Köpa secondhand --

**Fråga 15:** Har du under de senaste 12 månaderna köpt kläder på secondhand?

- ☐ Ja (Om du kryssar för "Ja", svara på fråga 16 och 17 och hoppa sen över fråga 18)
- ☐ Nej (Om du kryssar för "Nej", hoppa över fråga 16 och 17 och svara på fråga 18)
- ☐ Vet inte (Om du kryssar för "Vet inte", hoppa över fråga 16 och 17 och svara på fråga 18)

**Fråga 16:** Hur ofta köper du kläder på secondhand?

- ☐ Varje vecka
- ☐ Varje månad
- ☐ Varje kvartal
- ☐ Varje halvår



- ☐ Varje år
- ☐ Mer sällan än så

**Fråga 17:** Den här frågan besvaras av dig som har köpt kläder på secondhand. Markera det alternativ som stämmer för varje påstående.

Jag köper kläder på secondhand för att:	Ja	Nej	Ingen uppfattning
... där kan jag köpa unika plagg	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... det är billigare än att köpa nyttillverkade kläder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... det är skonsamt mot miljön	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... jag tycker inte nyttillverkade kläder är snygga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... jag kan hitta billiga märkeskläder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... Det är trendigt med secondhand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Fråga 18:** Den här frågan besvaras av dig som inte har köpt kläder på secondhand. Markera det alternativ som stämmer för varje påstående.

Jag köper <u>inte</u> kläder på secondhand för att:	Ja	Nej	Ingen uppfattning
... secondhandkläder håller inte lika länge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... Secondhandkläder är ohygieniska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... secondhandkläder är omoderna	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... det är pinsamt att bära secondhand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... det är pinsamt att handla i secondhandbutik	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### -- Avslutande frågor om Gekås och dig --

**Fråga 19:** Hur många gånger har du varit på Gekås de senaste 12 månaderna?

\_\_\_\_\_ gånger

**Fråga 20:** Om Gekås hade en återanvändnings-/återvinningsstation för kläder, skulle du kunna tänka dig att lämna kläder där?

- ☐ Ja
- ☐ Nej (om du kryssar för "Nej", hoppa över fråga 21 och gå vidare till fråga 22)
- ☐ Vet inte (om du kryssar för "Vet inte", hoppa över fråga 21 och gå vidare till fråga 22)

**Fråga 21:** Den här frågan besvaras av dig som kan tänka dig att lämna in kläder för återanvändning/återvinning vid ditt besök på Gekås.

När du tar med gamla kläder till Gekås, kan du tänka dig att sortera dessa kläder i olika inlämningsboxar, t ex "trasigt/bomull", "helt och rent i bomull", "trasigt nylon", "helt och rent i nylon"?

- ☐ Ja
- ☐ Nej
- ☐ Vet inte

**Fråga 22:** Är du: ☐ Kvinna ☐ Man

**Fråga 23:** Vilket år är du född? \_\_\_\_\_

**Fråga 24:** Hur många personer ingår i ditt hushåll: \_\_\_\_\_ person(er)

**Fråga 25:** Vilken är din högsta utbildningsnivå?

- ☐ Grundskola
- ☐ Gymnasium
- ☐ Eftergymnasial utbildning utanför högskolesystemet
- ☐ Högskola/universitet
- ☐ Vill inte svara

**Fråga 26:** Hur långt har du rest för att komma hit till Gekås idag? \_\_\_\_\_ mil

**Fråga 27:** Hur har du rest?

- ☐ Bil
- ☐ Buss
- ☐ Tåg
- ☐ Annat.....

**Fråga 28:** I vilken kommun bor du? \_\_\_\_\_

Tack för att du tog dig tid, har du några frågor är du välkommen att kontakta oss via e-post.

Karin M Ekström (forskningsledare), e-post: karinm.ekstrom@hb.se

Eva Gustafsson, e-post: eva.gustafsson@hb.se

Daniel Hjelmgren, e-post: daniel.hjelmgren@hb.se

Nicklas Salomonson, e-post: nicklas.salomonson@hb.se

Vi arbetar vid Institutionen för data- och affärsvetenskap, Högskolan i Borås